

Supplement to Aune D, Sen A, Prasad M, Norat T, Janszky I, Tonstad S, Romundstad P, Vatten LJ. BMI and all cause mortality: a systematic review and non-linear dose-response meta-analysis of 230 cohort studies with 3.74 million deaths among 30.3 million participants. *BMJ* 2016;353:i1256

**Appendix 2:** Supplementary tables [posted as supplied by author]

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Table B: Prospective studies of body mass index and all cause mortality risk

Author, publication year, country/region	Study name	Recruitment and follow-up period	Study size, gender, age, number of deaths	Assessment of weight and height	Excluded baseline diseases	Excluded early follow-up	Exposure by subgroup	Description of quantiles of categories	RR (95% CI)	Adjustment for confounders
Multiple Risk Factor Intervention Trial Research Group, 1986, USA	Multiple Risk Factor Intervention Trial	NA-NA, 6 years follow-up	12866 men (6428 intervention/ 6438 usual care), mean age 46 years: 525 deaths	NA	No	No	BMI, special intervention group  BMI, usual care group	$\leq 24.9$ $25.0-26.6$ $26.7-28.2$ $28.3-30.5$ $\geq 30.6$ $\leq 24.9$ $25.0-26.6$ $26.7-28.2$ $28.3-30.5$ $\geq 30.6$	1.00 0.95 0.82 0.98 1.18 1.00 0.85 0.77 1.19 1.09	Age, diastolic blood pressure, cigarettes per day, serum cholesterol
Johansen H et al, 1987, Canada	Nutrition Canada Survey Cohort	1970-72 – 1981, 10 years follow-up	3624 men and 4470 women, age 35-79 years: 532/330 deaths	NA	No	No	BMI, men  BMI, women	$<19.5$ $19.5-22.5$ $22.6-25.0$ $25.1-27.5$ $27.6-30.0$ $\geq 30.1$ $<19.5$ $19.5-22.5$ $22.6-25.0$ $25.1-27.5$ $27.6-30.0$ $\geq 30.1$	1.26 (0.89-1.79) 1.00 0.92 (0.75-1.12) 0.84 (0.57-1.24) 1.28 (0.86-1.90) 1.15 (0.64-2.07) 1.00 1.05 (0.79-1.40) 1.11 (0.79-1.58) 1.39 (0.98-1.98)	Smoking status and pack-years
Rissanen A et al, 1989, Finland	Finnish Mobile Clinic Health Examination Survey	1966-1972 – 1981, 12 years follow-up	22995 men, age $\geq 25$ years: 4073 deaths  NA never smokers: 751 deaths  NA former smokers: 916 deaths  NA current smokers: 2406 deaths	Measured	Prevalent cancer, heart disease or diabetes were excluded	First 2 years of follow-up excluded in sensitivity analyses	BMI, all  BMI, never smokers  BMI, former smokers	$<19.0$ $19.0-21.9$ $22.0-24.9$ $25.0-27.9$ $28.0-30.9$ $31.0-33.9$ $\geq 34.0$ $<19.0$ $19.0-21.9$ $22.0-24.9$ $25.0-27.9$ $28.0-30.9$ $31.0-33.9$ $\geq 34.0$ $<19.0$ $19.0-21.9$ $22.0-24.9$ $25.0-27.9$ $28.0-30.9$ $31.0-33.9$ $\geq 34.0$	1.5 (1.28-1.75) 1.1 (1.01-1.19) 1.0 1.0 (0.93-1.08) 1.0 (0.92-1.09) 1.2 (1.10-1.31) 1.4 (1.15-1.71) 1.8 (0.92-3.52) 1.2 (0.95-1.52) 1.0 1.0 (0.84-1.19) 1.0 (0.82-1.22) 1.3 (1.00-1.70) 1.4 (0.91-2.16) 1.8 (1.02-3.17) 1.5 (1.20-1.88) 1.2 (1.01-1.43)	Age, region, smoking status and cigarettes per day  Age

Rissanen A et al, 1991, Finland	Finnish Mobile Clinic Health Examination Survey	1966-1972 - 1981, 12 years follow-up	17519 women, age 25-79 years: 898 deaths  14011 never smokers: 746 deaths  719 former smokers: 24 deaths  2765 current smokers: 128 deaths	Measured	Prevalent heart disease or cancer excluded	Stratified analyses by <7 and ≥7 years of follow-up	BMI, all  BMI, never smokers  BMI, former smokers  BMI, current smokers	25.0-27.9 28.0-30.9 31.0-33.9 ≥34.0 <19.0 19.0-21.9 22.0-24.9 25.0-27.9 28.0-30.9 31.0-33.9 ≥34.0 <19.0 19.0-21.9 22.0-24.9 25.0-27.9 28.0-30.9 31.0-33.9 ≥34.0	1.2 (1.01-1.42) 1.2 (1.00-1.44) 1.5 (1.18-1.90) 1.7 (1.15-2.51) 2.3 (1.76-3.01) 2.0 (1.70-2.36) 1.7 (1.45-1.99) 1.5 (1.26-1.78) 1.8 (1.47-2.21) 1.8 (1.32-2.46) 3.2 (2.17-4.72) 3.6 (2.74-4.73) 2.0 (1.68-2.38) 2.1 (1.80-2.45) 1.9 (1.61-2.24) 2.6 (2.16-3.13) 2.6 (1.97-3.43) 2.0 (1.28-3.13)	Age, region, smoking status  Age, region
Ho SC et al, 1991, Hong Kong	Shatin New Town	1985 - 1987, 2 years follow-up	1054 men and women, age ≥70 years: 89 deaths	Measured	No	No	BMI	<20 20-24 >25	1.6 (1.0-2.5) 1.0 0.8 (0.3-1.7)	Age, sex, residence, marital status, smoking status, difficulties of daily living, health compared to others

Lee IM et al, 1993, USA	Harvard Alumni Health Study	1962-66 – 1988, 27 years follow-up	19297 men, mean age 46.6 years: 4370 deaths  3965 never smokers: 578 deaths  6199 former smokers: 1398 deaths  9133 current smokers: 2394 deaths	Self-reported	Excluded prevalent coronary heart disease, stroke and cancer	Stratified by follow-up period and first 5 years excluded in sensitivity analyses	BMI, all  BMI, never smokers, excluding first 5 years of follow-up  BMI, never smokers  BMI, former smokers  BMI, current smokers	<22.5 22.5-<23.5 23.5-<24.5 24.5-<26.0 ≥26.0  <22.5 22.5-<23.5 23.5-<24.5 24.5-<26.0 ≥26.0  <22.5 22.5-<23.5 23.5-<24.5 24.5-<26.0 ≥26.0  <22.5 22.5-<23.5 23.5-<24.5 24.5-<26.0 ≥26.0  <22.5 22.5-<23.5 23.5-<24.5 24.5-<26.0 ≥26.0	1.00 0.99 (0.89-1.20) 0.95 (0.87-1.05) 1.01 (0.91-1.10) 1.18 (1.08-1.28)  1.00 1.23 1.06 1.27 1.67 (1.29-2.17) 1.00 1.20 1.05 1.21 1.57 (1.23-2.00) 1.00 1.08 1.10 1.05 1.25 (1.06-1.47) 1.00 0.91 0.87 (0.77-0.98) 0.96 1.06 (0.94-1.19)	Age, smoking status, physical activity
Kornitzer M et al, 1993, Belgium	Belgian Bank Study	1964-1965 -NA, 25 years follow-up	1227 men, age 40-59 years: 453 deaths	Measured	Subjects with coronary heart disease were excluded	No	BMI	<23.4 23.4-26.0 ≥26.0	1.00 0.86 (0.79-1.02) 1.02 (0.88-1.23)	Age
Sorkin JD et al, 1994, USA	Adventist Mortality Study	1960 – 1985, 15 years follow-up	8828 men, age 30-89 years: 3444 deaths	Self-reported	No	No	BMI	≤22.3 22.4-24.2 24.3-25.7 25.8-27.5 ≥27.5	0.86 (0.78-0.95) 0.86 (0.77-0.95) 0.88 (0.79-0.98) 0.88 (0.80-0.98) 1.00	Age
Norrish A et al, 1995, New Zealand	The Auckland Risk Factor Study	1982-1991, 9 years follow-up	1029 men, age 35-64 years: 96 deaths	Measured	No	No	BMI	<22.9 22.9-25.6 ≥25.6	1.00 1.14 (0.66-1.95) 1.59 (0.94-2.66)	Age, smoking status, alcohol, SES
Hanson RL et al, 1995, USA	Gila River Indian Community	1965-1990, 8.1 years follow-up	814 diabetic and 1814 nondiabetic participants, age >20 years: 570 deaths	Measured	No	No	BMI, no diabetes  BMI, with diabetes	<25 25-30 30-35 35-40 ≥40 <25	1.5 (1.0-2.2) 1.0 (0.7-1.5) 1.0 1.2 (0.8-1.9) 1.9 (1.2-3.1) 1.4 (1.0-2.1)	Age, sex, smoking status

							25-30 30-35 35-40 ≥40	1.2 (0.9-1.7) 1.0 1.3 (0.8-2.3) 2.1 (1.0-4.5)		
Seidell JC et al, 1996, Netherlands	The Consultation Bureau Project on Cardiovascular Diseases	1974-80 – 1993, 12 years follow-up	48287 men and women, age 30-54 years: 1319 deaths	Measured	No	First 5 years of follow-up excluded in sensitivity analyses (partly reported results)	BMI, men  BMI, women	<18.5 18.5-24.99 25.0-26.99 27.0-29.99 ≥30.0  <18.5 18.5-24.99 25.0-26.99 27.0-29.99 ≥30.0	2.60 (1.75-3.86) 1.00 0.89 (0.74-1.07) 1.12 (0.92-1.36) 1.47 (1.09-1.98)  1.13 (0.68-1.87) 1.00 0.81 (0.61-1.06) 1.12 (0.84-1.47) 1.08 (0.74-1.45)	Age
Hodge AM et al, 1996, Nauru, Fiji	Nauru, Fiji	1980/1982 - 1991/1992, 10/11 years follow-up	1400 Micronesian Nauruans 1279 Melanesian Fijians And 1182 Indian Fijians, age ≥20 years: 209 deaths 173 deaths 129 deaths	Measured	No	No	BMI, Nauru, men  BMI, Melanesian Fijians, men  BMI, Indian Fijians, men  BMI, Nauru, women  BMI, Melanesian Fijians, women  BMI, Indian Fijians, women	<29.0 29.0-32.5 32.6-36.3 ≥36.4  <23.3 23.3-25.2 25.3-27.8 ≥27.9  <19.7 19.7-22.2 22.3-25.2 ≥25.3  <29.5 29.5-34.4 34.5-39.4 ≥39.5  <23.7 23.7-27.0 27.1-30.8 ≥30.9  <19.6 19.6-23.1 23.1-27.2 ≥27.2	1.4 (0.8-2.5) 1.2 (0.7-2.0) 1.2 (0.7-2.2) 1.0  1.1 (0.6-1.8) 0.8 (0.4-1.4) 1.0 (0.6-1.6) 1.0  1.3 (0.7-2.4) 0.9 (0.4-1.9) 1.1 (0.6-1.9) 1.0  0.8 (0.4-1.6) 0.8 (0.4-1.6) 0.8 (0.4-1.6) 1.0  2.7 (1.4-5.4) 0.8 (0.3-1.8) 1.4 (0.7-2.8) 1.0  1.6 (0.7-3.9) 2.0 (1.0-4.2) 0.7 (0.3-1.6) 1.0	Age, diabetes, smoking status
Chyou PH et al, 1997, USA	Honolulu Heart Program	1965-1968 – 1991, 22 years follow-up	8006 Japanese American man, age 45-68 years: 2667 deaths	Measured	No	No	BMI	<21.21 21.21-23.00 23.01-24.60 24.61-26.30 ≥26.31	1.13 (1.03-1.24) 0.98 (0.88-1.09) 1.00 1.01 (0.91-1.12) 1.29 (1.17-1.42)	Age, alcohol, smoking – pack years

Lindsted KD et al, 1997, USA	Adventist Mortality Study	1960 – 1985, 26 years follow-up	12576 white never smoking women, age 30-74 years: 3280 deaths	Self-reported	Prevalent heart disease, stroke, and cancer, unstable weight, and severe physical complaints (chest pain, shortness of breath, fatigue, loss of appetite, blood in stool, blood in urine, lump or thickening in breast, unusual discharge from breast, unusual bleeding from vagina) excluded in sensitivity analyses	No	BMI, year 1-8, age 30-54 years	<21.3 21.3-22.9 23.0-24.8 24.9-27.4 >27.4	1.00 0.79 (0.44-1.40) 0.56 (0.30-1.06) 0.87 (0.48-1.58) 1.14 (0.64-2.03)	BMI, year 9-14	<21.3 21.3-22.9 23.0-24.8 24.9-27.4 >27.4	1.00 0.84 (0.42-1.68) 0.86 (0.43-1.72) 1.23 (0.63-2.38) 1.81 (0.96-3.41)	BMI, year 15-26	<21.3 21.3-22.9 23.0-24.8 24.9-27.4 >27.4	1.00 0.69 (0.48-0.99) 0.87 (0.62-1.23) 0.98 (0.69-1.39) 1.64 (1.19-2.26)	BMI, year 1-8, age 55-74 years	<21.3 21.3-22.9 23.0-24.8 24.9-27.4 >27.4	1.00 0.81 (0.59-1.12) 0.50 (0.36-0.70) 0.66 (0.49-0.89) 1.07 (0.82-1.40^)	BMI, year 9-14	<21.3 21.3-22.9 23.0-24.8 24.9-27.4 >27.4	1.00 0.93 (0.69-1.27) 0.84 (0.63-1.12) 1.02 (0.78-1.33) 1.34 (1.04-1.74)	BMI, year 15-26	<21.3 21.3-22.9 23.0-24.8 24.9-27.4 >27.4	1.00 1.11 (0.91-1.36) 1.13 (0.93-1.36) 1.12 (0.93-1.33) 1.29 (1.08-1.54)	BMI, year 1-8, age 30-54 years	<21.3 21.3-22.9 23.0-24.8 24.9-27.4 >27.4	1.00 0.79 (0.33-1.90) 0.81 (0.33-1.98) 1.13 (0.47-2.72) 1.37 (0.57-3.31)	BMI, year 9-14	<21.3 21.3-22.9 23.0-24.8 24.9-27.4 >27.4	1.00 1.10 (0.39-3.22) 1.23 (0.42-3.59) 2.81 (1.07-7.38) 4.02 (1.54-10.5)	BMI, year 15-26	<21.3 21.3-22.9 23.0-24.8	1.00 0.67 (0.42-1.07) 0.90 (0.58-1.41)
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						BMI, year 1-8, age 55-74 years	24.9-27.4 >27.4 <21.3 21.3-22.9 23.0-24.8 24.9-27.4 >27.4 <21.3 21.3-22.9 23.0-24.8 24.9-27.4 >27.4 <21.3 21.3-22.9 23.0-24.8 24.9-27.4 >27.4	0.95 (0.60-1.50) 1.62 (1.06-2.49) 1.00 0.84 (0.49-1.46) 0.47 (0.27-0.84) 0.86 (0.53-1.41) 1.18 (0.74-1.88) 1.00 0.99 (0.65-1.52) 0.87 (0.58-1.30) 1.22 (0.83-1.77) 1.24 (0.85-1.82) 1.00 1.14 (0.88-1.47) 1.16 (0.91-1.47) 1.11 (0.88-1.41) 1.35 (1.16-1.71)		
Lindsted KD et al, 1998, USA	Adventist Mortality Study	1960-1985, 26 years follow-up	5062 never-smoking men, age 30-74 years: 1034 deaths	Self-reported	No	Analyses stratified by duration of follow-up	BMI, age 30-54 years, years 1-8  BMI, age 55-74 years  BMI, age 30-54 years, years 9-14  BMI, age 55-74 years  BMI, age 30-54 years, years 15-26  BMI, age 55-74 years	14.3-22.5 22.6-27.4 27.5-43.9 14.3-22.5 22.6-27.4 27.5-43.9 14.3-22.5 22.6-27.4 27.5-43.9 14.3-22.5 22.6-27.4 27.5-43.9 14.3-22.5 22.6-27.4 27.5-43.9 14.3-22.5 22.6-27.4 27.5-43.9 14.3-22.5 22.6-27.4 27.5-43.9 14.3-22.5 22.6-27.4 27.5-43.9 14.3-22.5 22.6-27.4 27.5-43.9	0.72 (0.30-1.72) 1.00 0.50 (0.21-1.20) 1.03 (0.74-1.43) 1.00 0.78 (0.54-1.14) 1.60 (0.85-3.00) 1.00 1.36 (0.75-2.47) 0.71 (0.51-1.00) 1.00 1.23 (0.93-1.65) 0.86 (0.57-1.29) 1.00 1.67 (1.24-2.25) 0.77 (0.61-0.98) 1.00 1.10 (0.89-1.36)	Age
Maskarinec G et al, 1998, USA	Hawaii Household Survey	1975-1980 – 1994, ~16.5 years follow-up	27678 men and women, age >30 years: 5011 deaths	Self-reported	Prevalent cancers excluded	No	BMI, men  BMI, women	<19.6 19.6-21.3 21.4-24.8 24.9-29.2 29.3-32.5 ≥32.6 <18.5 18.5-19.9	1.33 (1.15-1.53) 1.11 (0.99-1.26) 1.00 1.08 (0.99-1.18) 1.45 (1.23-1.72) 1.63 (1.32-2.02) 1.42 (1.22-1.66) 1.00	Age, ethnicity, years of schooling, alcohol, smoking status and packs per day



						BMI, women, age 20-44 years	$\geq 35$	1.30 (0.84-1.99)	
							<20	1.83 (0.52-6.39)	
							20-24	1.32 (0.56-3.12)	
							25-29	1.00	
							30-34	1.18 (0.31-4.49)	
						BMI, women, age 45-69 years	$\geq 35$	4.42 (1.28-15.28)	
							<20	2.47 (1.39-4.37)	
							20-24	1.50 (1.05-2.14)	
							25-29	1.30 (0.93-1.81)	
							30-34	1.00	
						BMI, men, age 20-44 years, smokers excluded	$\geq 35$	1.40 (0.88-2.22)	
							<20	Model did not converge	
						BMI, men, age 45-69 years	$\geq 35$		
							<20	1.00	
							20-24	0.39 (0.20-0.74)	
							25-29	0.37 (0.20-0.70)	
							30-34	0.42 (0.22-0.81)	
						BMI, women, age 20-44 years	$\geq 35$	0.47 (0.20-1.09)	
							<20	4.03 (0.84-19.26)	
							20-24	1.97 (0.61-6.40)	
							25-29	1.00	
						BMI, women, age 45-69 years	30-34	1.43 (0.26-7.89)	
							$\geq 35$	6.18 (1.32-29.04)	
							<20	2.19 (1.05-4.55)	
							20-24	1.56 (1.04-2.35)	
							25-29	1.39 (0.96-2.02)	
							30-34	1.00	
						BMI, men, age 20-44 years, early deaths excluded	$\geq 35$	1.61 (0.98-2.66)	
							<20	1.00	
							20-24	0.42 (0.13-1.47)	
							25-29	0.48 (0.14-1.65)	
							30-34	0.38 (0.08-1.64)	
						BMI, men, age 45-69 years	$\geq 35$	0.73 (0.07-7.34)	
							<20	1.00	
							20-24	0.73 (0.44-1.22)	
							25-29	0.69 (0.42-1.15)	
							30-34	0.78 (0.46-1.32)	
						BMI, women, age 20-44 years	$\geq 35$	0.95 (0.47-1.94)	
							<20	1.97 (0.44-8.85)	
							20-24	1.47 (0.50-4.27)	



						BMI, nonsmokers	<23 23-<25 25-<26 26-<27 27-<28 28-<29 29-<30 30-35 >35	1.26 (0.90-1.60) 1.00 1.09 (0.80-1.50) 1.08 (0.80-1.50) 1.16 (0.90-1.60) 1.35 (0.90-1.80) 1.65 (1.20-2.30) 1.52 (1.20-1.90) 1.96 (1.40-2.70)		
Allison DB et al, 1999, USA	Tecumseh Community Health Study	1959-1960 - 1985, ~25.5 years follow-up	3905 men and women, age 35-69 years: 708 deaths	Measured	No	BMI, all	<23 23-<25 25-<26 26-<27 27-<28 28-<29 29-<30 30-35 >35	1.20 (0.90-1.50) 1.00 1.18 (0.90-1.60) 0.89 (0.70-1.20) 1.12 (0.80-1.50) 0.92 (0.60-1.30) 0.94 (0.60-1.40) 1.45 (1.10-1.90) 1.87 (1.30-2.70) 1.05 (0.70-1.50) 1.00 1.17 (0.70-1.80) 1.14 (0.70-1.90) 0.83 (0.50-1.40) 0.81 (0.50-1.40) 1.32 (0.70-2.60) 1.60 (1.10-2.40) 1.52 (0.90-2.60)	Age, sex, smoking status	
Allison DB et al, 1999, USA	Cancer Prevention Study 1	1959-1960-1973, ~13.5 years follow-up	829636 men and women, age $\geq$ 30 years: 124229 deaths  314135 never smokers: NA	Self-reported	Prevalent poor health, myocardial infarction, stroke, or cancer	No	BMI, all	<23 23-<25 25-<26 26-<27 27-<28 28-<29 29-<30 30-35 >35	1.07 (1.00-1.10) 1.00 1.02 (1.00-1.04) 1.06 (1.00-1.10) 1.08 (1.00-1.10) 1.14 (1.10-1.20) 1.21 (1.20-1.30) 1.35 (1.30-1.40) 1.72 (1.60-1.80) 1.05 (1.00-1.10) 1.00 1.04 (1.00-1.10) 1.08 (1.00-1.10) 1.10 (1.08-1.20) 1.16 (1.10-1.20) 1.20 (1.10-1.30)	Age, sex, smoking status

								30-35 >35	1.36 (1.30-1.40) 1.76 (1.70-1.80)	
Ostbye T et al, 1999, Canada	Canadian Study of Health and Aging	1991 – 1996, 5 years follow-up	9995 men and women, age $\geq 65$ years: 2975 deaths	NA	No	No	BMI, women  BMI, men	<20 20-24.9 25.0-26.9 $\geq 27.0$ <20 20-24.9 25.0-26.9 $\geq 27.0$	1.0 0.6 (0.3-1.2) 0.4 (0.2-1.0) 0.3 (0.2-0.7) 1.0 0.5 (0.1-1.9) 0.4 (0.1-1.7) 0.3 (0.1-1.2)	Age, marital status, residence, cognitive impairment, activities of daily living, vision, hearing impairment, Hachinski score, heart disease, respiratory disease, diabetes, smoking status
Singh PN et al, 1999, USA	Adventist Health Study	1976-1988, 12 years follow-up	20346 never smoking men and women, age 25-84 years: 2364 deaths	Self-reported	Prevalent coronary heart disease, stroke or cancer excluded	Analyses stratified by duration of follow-up	BMI, women, age 25-54 years, follow-up 1-6 years  BMI, women, age 25-54 years, follow-up 7-12 years  BMI, men, age 25-54 years, follow-up 1-6 years  BMI, men, age 25-54 years, follow-up 7-12 years  BMI, women, age 55-84 years, follow-up 1-6 years  BMI, women, age 55-84 years, follow-up 7-12 years  BMI, men, age 55-84 years, follow-up 1-6 years  BMI, men, age 55-84 years, follow-up 7-12 years	13.9-20.6 20.7-27.4 27.5-55.0 13.9-20.6 20.7-27.4 27.5-55.0 15.0-22.3 22.4-27.3 27.4-51.7 15.0-22.3 22.4-27.3 27.4-51.7 13.4-20.6 20.7-22.4 22.5-24.2 24.3-27.4 27.5-65.6 13.4-20.6 20.7-22.4 22.5-24.2 24.3-27.4 27.5-65.6 13.5-22.3 22.4-23.7 23.8-25.3 25.4-27.3 27.4-40.5 13.5-22.3 22.4-23.7 23.8-25.3 25.4-27.3 27.4-40.5	1.2 (0.6-2.6) 1.0 2.0 (1.0-3.7) 0.6 (0.2-1.2) 1.0 1.9 (1.2-3.0) 2.0 (0.9-4.2) 1.0 1.6 (0.7-3.6) 0.9 (0.5-1.9) 1.0 1.5 (0.8-2.6) 1.6 (1.2-2.1) 1.4 (1.1-1.9) 1.0 1.1 (0.9-1.5) 1.6 (1.2-2.1) 1.3 (1.1-1.6) 0.9 (0.7-1.2) 1.0 1.1 (0.9-1.3) 1.5 (1.2-1.8) 0.9 (0.6-1.4) 1.2 (0.8-1.7) 1.0 1.0 (0.6-1.4) 1.2 (0.8-1.8) 1.3 (1.0-1.9) 1.5 (1.1-2.0) 1.0 1.2 (0.9-1.7) 1.8 (1.3-2.5)	Age

Stevens J et al, 2000, USA	Cancer Prevention Study-1	1959-1960 – 1971-1972, 11 years follow-up	57073 men and 240158 women, never smokers, age 30-70 years: 9498/24700 deaths (no of deaths from NEJM 1998;338:1-7)	Self-reported	Participants with heart disease, stroke or cancer were excluded	No	BMI, women BMI, men	18.5-24.9 25.0-29.9 >30.0 18.5-24.9 25.0-29.9 >30.0	1.00 1.19 (1.17-1.21) 1.58 (1.51-1.65) 1.00 1.19 (1.13-1.25) 1.58 (1.48-1.72)	Age, education, physical activity
Andersen LB et al, 2000, Denmark	The Copenhagen City Cohort Study, The Glostrup Population studies and the Copenhagen Male Study	1976-83 – 1994, 13.8 years follow-up	13375 women and 17265 men, age 20-93 years: 2881 /5668 deaths	Measured	No	No	BMI, women BMI, men	<20 20-25 25.01-27 27.01-30 >30 <20 20-25 25.01-27 27.01-30 >30	1.65 (1.46-1.87) 1.00 0.98 (0.59-1.11) 1.10 (0.98-1.23) 1.43 (1.28-1.59) 1.69 (1.48-1.73) 1.00 0.93 (0.87-1.00) 1.06 (0.98-1.13) 1.21 (1.11-1.32)	Age, SBP, serum cholesterol, TG, smoking status, education
Baik I et al, 2000, USA	Health Professionals Follow-up Study	1986-1996, 10 years follow-up	39756 men, age 40-75 years: 1972 deaths	Self-reported	Participants with prevalent myocardial infarction, angina, coronary artery bypass grafting or angioplasty, stroke, transient cerebral ischemia, peripheral venous thrombosis, intermittent claudication, pulmonary embolus, paroxysmal atrial tachycardia	Sensitivity analyses excluding first 4 years of follow-up	BMI, all BMI, subjects without weight loss of ≥10 pounds in the past 5 years, 1986-1996 BMI, subjects without weight loss of ≥10 pounds in the past 5 years, 1990-1996 BMI, subjects without weight loss of ≥10 pounds in the past 5 years, age <65 years	<21 21.0-22.9 23-24.9 25-26.9 27-29.9 ≥30 <21 21.0-22.9 23-24.9 25-26.9 27-29.9 ≥30 <21 21.0-22.9 23-24.9 25-26.9 27-29.9 ≥30 <23.0 23-24.9 25-26.9 27-29.9 ≥30	1.47 (1.18-1.83) 1.06 (0.91-1.23) 1.00 1.07 (0.94-1.21) 1.17 (1.02-1.34) 1.50 (1.27-1.77) 1.35 (1.06-1.73) 1.07 (0.91-1.26) 1.00 1.06 (0.93-1.22) 1.15 (0.99-1.34) 1.53 (1.26-1.82) 1.28 (0.88-1.85) 0.99 (0.76-1.28) 1.00 1.03 (0.83-1.26) 1.16 (0.92-1.45) 1.49 (1.13-1.96) 1.00 1.21 (0.88-1.65) 1.19 (0.87-1.63) 1.39 (1.00-1.93) 1.97 (1.36-2.84)	Age, smoking status, cigarettes per day, FH – MI or colon cancer before age 60 years, profession, marital status, height, alcohol, vitamin A, vitamin E, dietary fiber

					and other heart-rhythm disturbances, cancer, chronic renal failure, and chronic pulmonary disease		BMI, subjects without weight loss of $\geq 10$ pounds in the past 5 years, age $\geq 65$ years	<23.0 23-24.9 25-26.9 27-29.9 $\geq 30$	1.00 0.69 (0.48-0.99) 0.75 (0.53-1.08) 0.83 (0.56-1.23) 0.85 (0.49-1.46)	
Folsom AR et al, 2000, USA	Iowa Women's Health Study	1986 - 1997, 11-12 years	31702 women, age 55-69 years: 2476 deaths	Self-reported	Excluded prevalent cancer, heart disease, and diabetes	No	BMI	<22.80 22.80-24.86 24.87-27.05 27.06-30.20 $\geq 30.21$	1.00 0.76 (0.7-0.9) 0.74 (0.7-0.8) 0.71 (0.6-0.8) 0.91 (0.8-1.0)	Age, education, physical activity, alcohol, smoking status, age at 1st live birth, estrogen use, vitamin use, energy, whole grain, fruit and vegetables, fish, red meat, Keys score, high blood pressure
Fortes C et al, 2000, Italy	Elderly in Rome	1993-1998, 5 years follow-up	162 men and women, age $\geq 65$ years: 53 deaths	Measured	Excluded subjects with severe disability	No	BMI	$\leq 21.0$ 21.1-30.0 $>30$	1.00 0.62 (0.30-1.31) 0.57 (0.35-1.42)	Age, sex, education, smoking status, cognitive function, chronic diseases
Haapanen-Niemi N et al, 2000, Finland	Three Northeastern Municipalities in Finland	1980-1996, 16 years follow-up	1090 men and 1122 women, age 35-63 years: 208/87 deaths	Self-reported	Subjects with BMI <20, or disease and symptoms that prevented participation in physical activity	No	BMI, men  BMI, women	20.0-24.9 25.0-29.9 $\geq 30.0$ 20.0-24.9 25.0-29.9 $\geq 30.0$	1.00 0.87 (0.64-1.19) 1.06 (0.67-1.69) 1.00 0.87 (0.52-1.46) 1.35 (0.76-2.41)	Age, employment status, marital status, perceived health status, smoking status, alcohol
Hara M et al, 2000, Japan	Saga Prefecture Japan	1983-1997, 14 years follow-up	2121 men, age 40-69 years: 309 deaths	Self-reported	No	No	BMI, men  BMI, women	<20 20-<22 22-<24 $\geq 24$ <20 20-<22 22-<24 $\geq 24$	1.00 0.82 (0.51-1.32) 0.80 (0.41-1.59) 0.54 (0.19-1.54) 1.00 0.56 (0.25-1.25) 0.86 (0.32-2.32) 0.73 (0.16-3.24)	Age, health status, smoking status, physical activity, balance of daily food intake
Strawbridge WJ et al, 2000, USA	Alameda County Study	1965-1994, 31 years follow-up	6253 men and women, age 21-75 years: 1295 deaths	Self-reported	No	First year of follow-up excluded	BMI, all  BMI, men	<18.5 18.5-24.9 25.0-29.9 30.0-34.9 $\geq 35.0$ $<18.5$	1.84 (1.41-2.39) 1.00 0.82 (0.72-0.92) 0.80 (0.63-1.01) 1.36 (0.93-2.00) 1.40 (0.78-2.50)	Age, sex, race/ethnicity, education, chronic bronchitis, cancer, cigarette smoking, physical activity

						BMI, women	18.5-24.9 25.0-29.9 30.0-34.9 $\geq$ 35.0 $<$ 18.5 18.5-24.9 25.0-29.9 30.0-34.9 $\geq$ 35.0	1.00 0.77 (0.65-0.91) 1.09 (0.80-1.50) 1.85 (0.87-3.93) 2.03 (1.51-2.74) 1.00 0.89 (0.74-1.09) 0.58 (0.41-0.83) 1.19 (0.75-1.87)		
Visscher TLS et al, 2000, Europe	Seven Countries Study	1960-75 1970-85 15 years follow-up	7985 men, age 40-59 years: 3777 deaths  1870 never smokers: 222 deaths  1153 former smokers: 189 deaths  4550 current smokers: 936 deaths	Measured	No	First 5 years of follow-up excluded	BMI, 1960-75, never smokers  BMI, ex-smokers  BMI, current smokers  BMI, 1970-85, never smokers  BMI, ex-smokers  BMI, current smokers	<18.5 18.5-25 25-30 $\geq$ 30 $<$ 18.5 18.5-25 25-30 $\geq$ 30 $<$ 18.5 18.5-25 25-30 $\geq$ 30 $<$ 18.5 18.5-25 25-30 $\geq$ 30 $<$ 18.5 18.5-25 25-30 $\geq$ 30 $<$ 18.5 18.5-25 25-30 $\geq$ 30 $<$ 18.5 18.5-25 25-30 $\geq$ 30	2.1 (0.8-5.7) 1.0 1.3 (0.9-1.7) 1.8 (1.2-2.8) 2.0 (0.5-8.2) 1.0 1.0 (0.7-1.3) 1.3 (0.8-2.1) 2.1 (1.5-2.8) 1.0 0.9 (0.8-1.1) 1.0 (0.7-1.4) 2.3 (1.0-5.3) 1.0 1.0 (0.8-1.2) 1.4 (1.0-1.9) 2.5 (1.3-4.8) 1.0 1.1 (0.9-1.4) 1.4 (1.0-1.8) 1.5 (1.1-2.1) 1.0 1.0 (0.9-1.1) 1.0 (0.8-1.3)	Age, study center
Visscher TLS et al, 2001, Netherlands	Rotterdam study	1990-93 – 1998, 5.4 years follow-up	6296 men and women, age 55-102 years: 479 deaths  2414 never smokers: 372 deaths  2573 former	Measured	No	No	BMI, men, never smokers  BMI, ex smokers	<23.1 23.1-24.5 24.6-26.1 26.2-27.8 $\geq$ 27.9 $<$ 23.1 23.1-24.5 24.6-26.1 26.2-27.8 $\geq$ 27.9	1.0 (0.5-1.9) 1.0 1.0 (0.5-1.9) 0.9 (0.5-1.8) 0.9 (0.4-1.8) 1.1 (0.8-1.6) 1.0 0.7 (0.5-1.1) 0.9 (0.6-1.4) 0.8 (0.6-1.2)	Age

			smokers: 374 deaths 1309 current smokers: 210 deaths				BMI, current smokers  BMI, women, never smokers  BMI, ex smokers  BMI, current smokers	<23.1 23.1-24.5 24.6-26.1 26.2-27.8 ≥27.9 <23.6 23.6-25.5 25.5-27.5 27.5-30.0 ≥30.0 <23.6 23.6-25.5 25.5-27.5 27.5-30.0 ≥30.0 <23.6 23.6-25.5 25.5-27.5 27.5-30.0 ≥30.0	1.3 (0.8-2.1) 1.0 0.8 (0.4-1.3) 0.9 (0.5-1.6) 0.6 (0.3-1.1) 1.0 (0.7-1.5) 1.0 0.8 (0.5-1.2) 0.8 (0.6-1.2) 0.8 (0.5-1.1) 1.3 (0.7-2.3) 1.0 1.2 (0.6-2.2) 1.3 (0.7-2.3) 1.0 (0.5-1.9) 1.7 (0.8-3.7) 1.0 1.4 (0.6-3.0) 1.0 (0.5-2.4) 0.9 (0.4-2.1)	
Grabowski DC et al, 2001, USA	Longitudinal Study of Aging	1984-1991, 8 years follow-up	7048 men and women, age ≥70 years: 2870 deaths	Self-reported	Prevalent cancer, diabetes, heart disease excluded in sensitivity analyses	Excluding first 2 years of follow-up in sensitivity analyses	BMI  BMI, excluding first 2 years  BMI, excluding prevalent cancer, diabetes or heart disease	17.8 23.8 31.8 17.8 23.8 31.8 17.8 23.8 31.8 17.8 23.8 31.8 17.8 23.8 31.8 17.8 23.8 31.8	1.46 (1.30-1.64) 1.00 0.86 (0.77-0.97) 1.38 (1.20-1.57) 1.00 0.93 (0.82-1.06) 1.40 (1.13-1.74) 1.00 0.67 (0.51-0.88)	Age, number of doctor visits, number of hospital bed days, number of short-stay hospital episodes, number of functional limitations, residential stability, urbanization, gender, race, private health insurance, region of the country, ever in a nursing home, education, self-rated health, lives alone, need for proxy, married, Medicaid
Katzmarzyk PT et al, 2001, Canada	Canada Fitness Survey	1981-1993, 12.4 years follow-up	10725 men and women, age 20-69 years: 593 deaths	Measured	No	Sensitivity analysis excluding first 2 years of follow-up (not reported)	BMI  BMI, men	<18.5 18.5-24.9 25.0-29.9 30.0-34.9 ≥35.0 <18.5 18.5-24.9 25.0-29.9 30.0-34.9 ≥35.0	1.63 (0.93-2.85) 1.00 1.16 (0.96-1.39) 1.25 (0.96-1.65) 2.96 (1.39-6.29) 2.29 (1.06-4.93) 1.00 1.08 (0.86-1.36) 1.00 (0.68-1.47) 2.52 (0.80-7.99)	Age, smoking status, alcohol

						BMI, women	<18.5 18.5-24.9 25.0-29.9 30.0-34.9 ≥35.0	1.24 (0.54-2.83) 1.00 1.24 (0.93-1.67) 1.59 (1.08-2.34) 3.13 (1.15-8.52)		
Niverthi M et al, 2001, USA	Life Insurance Applicants	1975-1998 – 1999, 4.7 years follow-up	356926 men and women, age 18-≥60 years: 4105 deaths	NA	No	BMI, all	<19 19-21 22-24 25-27 28-30 31-33 ≥34 19-21 22-24 25-27 28-30 ≥31 <22 22-24 25-27 28-30 31-33 ≥34	1.21 1.09 1.10 1.00 1.13 1.22 1.19 1.16 1.22 1.00 1.11 1.32 1.16 1.00 1.08 1.01 1.45 1.48	Age, sex, smoking status, duration of follow-up	
Dey DK et al, 2001, Sweden	Geriatric Medicine Department, Gothenburg	1971-1981 – NA, 15 years follow-up	2628 men and women, age 70 years: 781/552 deaths	Measured	Prevalent cancers were excluded	Excluding first 5 years in sensitivity analyses	BMI, men  BMI, women  BMI, men, excluding first 5 years  BMI, women, excluding first 5 years	14.0-22.6 22.7-24.6 24.7-26.4 26.5-28.5 28.6-39.2 14.1-22.5 22.6-24.5 24.6-26.5 26.6-29.2 29.3-39.8 14.0-22.6 22.7-24.6 24.7-26.4 26.5-28.5 28.6-39.2 14.1-22.5 22.6-24.5 24.6-26.5 26.6-29.2 29.3-39.8	1.20 (0.96-1.51) 1.07 (0.85-1.34) 1.00 1.01 (0.81-1.26) 1.19 (0.95-1.49) 1.49 (1.14-1.96) 1.16 (0.88-1.53) 1.00 1.16 (0.88-1.52) 1.25 (0.95-1.64) 1.06 (0.79-1.42) 1.09 (0.82-1.45) 1.00 1.07 (0.81-1.42) 1.22 (0.92-1.60) 1.52 (1.06-2.98) 1.35 (0.94-1.93) 1.00 1.29 (0.90-1.85) 1.48 (1.03-2.12)	Birth cohort, smoking

							BMI, men, non-smokers	14.0-22.6 22.7-24.6 24.7-26.4 26.5-28.5 28.6-39.2	1.15 (0.71-1.86) 1.09 (0.70-1.71) 1.00 0.96 (0.63-1.47) 1.30 (0.87-1.95)	
							BMI, women, non-smokers	14.1-22.5 22.6-24.5 24.6-26.5 26.6-29.2 29.3-39.8	1.58 (1.15-2.16) 1.04 (0.75-1.44) 1.00 1.12 (0.82-1.53) 1.22 (0.90-1.65)	
							BMI, men, non-smokers, excluding first 5 years	14.0-22.6 22.7-24.6 24.7-26.4 26.5-28.5 28.6-39.2	0.91 (0.53-1.58) 0.80 (0.47-1.35) 1.00 0.72 (0.45-1.18) 1.11 (0.71-1.74)	
							BMI, women, non-smokers, excluding first 5 years	14.1-22.5 22.6-24.5 24.6-26.5 26.6-29.2 29.3-39.8	1.50 (1.03-2.17) 1.14 (0.79-1.65) 1.00 1.24 (0.87-1.77) 1.42 (1.00-2.00)	
Wannamethee SG et al, 2001, United Kingdom	British Regional Heart Study	1978-1980 – 1997, 13.8 years follow-up	7065 men, age 40-59 years: 1457 deaths  1709 non-smokers: 620 deaths  722 recent ex-smokers: 199 deaths  2242 current smokers: 648 deaths	Measured	Subjects who had lost weight were excluded in sensitivity analyses	No	BMI, non-smokers (includes long-term ex-smokers)	<22 22-<24 24-<26 26-<28 ≥28	1.00 1.04 (0.71-1.53) 1.25 (0.87-1.79) 1.02 (0.71-1.48) 1.31 (0.91-1.88)	Age, social class, alcohol intake, physical activity, FEV1, former smoking/number of cigarettes among smokers
							BMI, recent ex-smokers	<22 22-<24 24-<26 26-<28 ≥28	1.00 0.66 (0.36-1.21) 0.63 (0.34-1.16) 0.52 (0.28-0.95) 0.65 (0.36-1.17)	
							BMI, current smokers	<22 22-<24 24-<26 26-<28 ≥28	1.00 0.85 (0.65-1.10) 0.92 (0.71-1.18) 0.96 (0.74-1.26) 0.97 (0.74-1.27)	
							BMI, non-smokers, excluding men who lost weight	<22 22-<24 24-<26 26-<28 ≥28	1.00 1.30 (0.80-2.13) 1.56 (0.98-2.48) 1.35 (0.85-2.16) 1.61 (1.01-2.56)	
							BMI, recent ex-smokers	<22 22-<24 24-<26	1.00 0.55 (0.28-1.08)	
								24-<26	0.56 (0.29-1.09)	

						BMI, current smokers	26-<28 ≥28 <22 22-<24 24-<26 26-<28 ≥28	0.52 (0.27-0.99) 0.63 (0.34-1.19) 1.00 0.90 (0.66-1.22) 0.99 (0.74-1.32) 1.08 (0.79-1.46) 1.02 (0.75-1.38)		
Osler M et al, 2001, Denmark	Danish MONICA 1-3 surveys	1982-1998, 15 years follow-up	2855 men and 2755 women, age 30-70 years: 376/210 deaths	Measured	No	BMI, men  BMI, women	<20 20-24.9 25-29.9 >30 <20 20-24.9 25-29.9 >30	1.67 (1.04-2.67) 1.00 0.91 (0.72-1.14) 1.14 (0.83-1.57) 1.40 (0.90-2.17) 1.00 1.07 (0.76-1.50) 1.52 (1.01-2.26)	Age, prudent diet score, self-rated health, physical activity, smoking status, vocational education	
Barbagallo CM et al, 2001, Italy	The 'Ventimiglia di Sicilia' project	1989-1997, 8 years follow-up	835 men and women, age 20-69 years: 37 deaths	Measured	No	BMI	<27 27-29.99 ≥30.0	1.00 1.64 (0.65-4.15) 2.45 (1.03-5.87)	Age, sex	
Farrell SW et al, 2002, USA	Aerobics Center Longitudinal Study	1970-1996, 11.4 years follow-up	9925 women, mean age 42.9 years: 195 deaths	Measured	No	BMI	18.5-24.99 25.0-29.99 ≥30.0	1.00 0.84 (0.56-1.26) 1.21 (0.71-2.05)	Age, smoking, baseline health status, cardiorespiratory fitness	
Stevens J et al, 2002, USA	Lipid Research Clinics Study	1972-76 – 1998, ~24 years follow-up	2506 women, and 2860 men, mean age 46.6/45.1 years: 484/682 deaths	Measured	Prevalent coronary heart disease, stroke	Excluded first year of follow-up	BMI, women  BMI, men	18.7-21.0 21.1-22.6 22.7-24.4 24.5-27.6 27.7-42.6 19.5-23.6 23.7-25.2 25.3-26.7 26.8-28.6 28.7-39.4	1.00 1.06 (0.74-1.51) 0.99 (0.71-1.38) 0.94 (0.68-1.30) 1.21 (0.87-1.67) 1.00 1.00 (0.78-1.29) 1.00 (0.77-1.31) 0.97 (0.75-1.26) 1.12 (0.88-1.44)	Age, education, smoking status, cigarettes per day, alcohol, Keys score, fitness
Tsugane S et al, 2002, Japan	Japan Public Health-Center-based Prospective Study 1	1990-1999, 10 years follow-up	19500 men and 21315 women, age 40-59 years: 943/483 deaths  8655 and 19749 never smokers: 592	Self-reported and measured	Excluded prevalent cancer, cerebro-vascular disease, myocardial infarction, chronic liver disease	Sensitivity analyses excluding first 5 years of follow-up	BMI, men  BMI, excluding first 5 years	14.0-18.9 19.0-20.9 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 30.0-39.9 14.0-18.9 19.0-20.9 21.0-22.9	2.26 (1.66-3.08) 1.57 (1.25-1.98) 1.33 (1.09-1.63) 1.00 1.14 (0.90-1.45) 1.38 (1.03-1.83) 1.97 (1.27-3.06) 2.35 (1.58-3.49) 1.66 (1.24-2.22) 1.30 (1.01-1.69)	Age, cigarette smoking status and pack-years, study area, alcohol, education, sports and physical exercise at leisure-time, weight change since 20 years old

		deaths					23.0-24.9	1.00	
		6686 former smokers (men): 175 deaths					25.0-26.9	1.19 (0.90-1.61)	
							27.0-29.9	1.19 (0.81-1.73)	
							30.0-39.9	1.51 (0.81-2.82)	
						BMI, excluding subjects reporting weight loss of $\geq 10$ kg since 20 years old	14.0-18.9	2.41 (1.63-3.55)	
							19.0-20.9	1.52 (1.18-1.96)	
							21.0-22.9	1.26 (1.01-1.56)	
							23.0-24.9	1.00	
							25.0-26.9	1.08 (0.84-1.38)	
							27.0-29.9	1.34 (1.00-1.80)	
						BMI, women	30.0-39.9	1.80 (1.14-2.85)	
							14.0-18.9	1.94 (1.30-2.89)	
							19.0-20.9	0.98 (0.69-1.40)	
							21.0-22.9	0.99 (0.74-1.32)	
							23.0-24.9	1.00	
							25.0-26.9	1.30 (0.96-1.76)	
							27.0-29.9	1.33 (0.94-1.88)	
							30.0-39.9	1.91 (1.22-2.99)	
						BMI, excluding first 5 years	14.0-18.9	1.46 (0.87-2.46)	
							19.0-20.9	0.91 (0.59-1.39)	
							21.0-22.9	0.82 (0.57-1.17)	
							23.0-24.9	1.00	
							25.0-26.9	1.13 (0.78-1.64)	
							27.0-29.9	0.90 (0.57-1.44)	
							30.0-39.9	1.72 (0.99-2.98)	
						BMI, excluding subjects reporting weight loss of $\geq 10$ kg since 20 years old	14.0-18.9	1.60 (0.89-2.88)	
							19.0-20.9	1.00 (0.66-1.50)	
							21.0-22.9	0.94 (0.68-1.31)	
							23.0-24.9	1.00	
							25.0-26.9	1.34 (0.98-1.84)	
							27.0-29.9	1.35 (0.95-1.92)	
							30.0-39.9	1.91 (1.21-3.03)	
						BMI, men, never smokers	14.0-18.9	2.82 (1.33-5.95)	
							19.0-20.9	1.17 (0.63-2.18)	
							21.0-22.9	1.62 (1.01-2.58)	
							23.0-24.9	1.00	
							25.0-26.9	1.17 (0.69-1.99)	
							27.0-29.9	1.63 (0.92-2.91)	
							30.0-39.9	1.47 (0.51-4.21)	
						BMI, men, past smokers	14.0-18.9	2.00 (0.80-5.01)	
							19.0-20.9	2.93 (1.75-4.92)	
							21.0-22.9	1.60 (0.99-2.58)	
							23.0-24.9	1.00	

						BMI, men, current smokers	25.0-26.9 27.0-29.9 30.0-39.9 14.0-18.9 19.0-20.9 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 30.0-39.9 14.0-18.9 19.0-20.9 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 30.0-39.9 14.0-18.9 19.0-20.9 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 30.0-39.9	1.09 (0.63-1.89) 1.57 (0.86-2.86) 1.50 (0.52-4.27) 2.11 (1.46-3.04) 1.37 (1.04-1.81) 1.20 (0.94-1.55) 1.00 1.14 (0.84-1.54) 1.19 (0.80-1.78) 2.31 (1.34-3.99) 2.11 (1.37-3.23) 0.99 (0.68-1.45) 1.02 (0.75-1.39) 1.00 1.33 (0.97-1.82) 1.23 (0.84-1.79) 1.79 (1.08-2.96)		
						BMI, women, never smokers				
Miyazaki M et al, 2002, Japan	Four towns, western Japan	1987-1990 – 1995-1998, ~8 years follow-up	7301 men and 8825 women, age 40-69 years: 502 / 287 deaths  1604 and 7711 never smokers: 293 deaths  5697 and 1114 ever smokers: 496 deaths	Self-reported	No	First two years of follow-up excluded in sensitivity analyses (risk estimates not reported)	BMI, men  BMI, men, never smokers  BMI, women  BMI, women, never smokers  BMI, men, ever smokers  BMI, women, ever smokers	<20 20-<22 22-<24 24-<26 ≥26 <20 20-<22 22-<24 24-<26 ≥26 <20 20-<22 22-<24 24-<26 ≥26 <20 20-<22 22-<24 24-<26 ≥26 <20 20-<22 22-<24 24-<26 ≥26 <20 20-<22 22-<24 24-<26 ≥26 <20 20-<22 22-<24 24-<26 ≥26 <20 20-<22 22-<24 24-<26 ≥26	1.78 (1.38-2.29) 1.35 (1.06-1.73) 1.00 0.91 (0.67-1.22) 1.11 (0.79-1.56) 3.30 (1.65-6.60) 2.10 (1.05-4.20) 1.00 0.96 (0.41-2.25) 1.37 (0.57-3.31) 1.92 (1.35-2.72) 1.22 (0.85-1.76) 1.00 1.26 (0.86-1.84) 1.56 (1.05-2.31) 2.33 (1.57-3.45) 1.27 (0.81-1.84) 1.00 1.27 (0.82-1.96) 1.57 (0.99-2.50) 1.61 (1.23-2.11) 1.27 (0.97-1.65) 1.00 0.91 (0.66-1.25) 1.09 (0.75-1.55) 0.93 (0.42-2.04)	Age, smoking

								20-<22 22-<24 24-<26 ≥26	1.25 (0.59-2.62) 1.00 1.22 (0.56-2.67) 1.46 (0.68-3.11)	
Wang Z et al, 2002, Australia	Aboriginal renal disease screening program	1992-1995 - 2001, 7.4 years follow-up	744 aboriginal adults, age 20- 77 years: 87 deaths	Measured	No	Excluded first 4 years of follow-up	BMI  BMI, smoker and drinker  BMI, non-smoker and non- drinkers  BMI, either smoker or drinker  BMI, excluding 1 <sup>st</sup> 4 years of follow-up	18.1 21.7 24.7 30.1 18.1 21.7 24.7 30.1 18.1 21.7 24.7 30.1 18.1 21.7 24.7 30.1 18.1 21.7 24.7 30.1 18.1 21.7 24.7 30.1	1.00 0.92 (0.54-1.59) 0.71 (0.40-1.26) 0.38 (0.19-0.75) 1.00 1.08 (0.53-2.20) 0.80 (0.36-1.74) 0.42 (0.14-1.27) 1.00 0.41 (0.08-2.02) 0.12 (0.02-0.86) 0.08 (0.01-0.52) 1.00 0.74 (0.25-2.20) 0.90 (0.33-2.43) 0.48 (0.16-1.45) 1.00 1.13 (0.53-2.40) 0.93 (0.42-2.07) 0.55 (0.22-1.37)	Age, sex, smoking status, drinking
Miller MD et al, 2002, Australia	The Australian Longitudinal Study of Ageing	1992-2000, 8 years follow-up	1396 men and women, age ≥70 years: 579 deaths	Measured	No	No	BMI	<20 20-25 >25-30 >30	1.36 (0.94-1.99) 1.00 0.99 (0.82-1.21) 1.13 (0.86-1.49)	Age, sex, marital status, self- rated health, smoking status, comorbid conditions, presence of depression, cognitive performance, assistance required with ADL, corrected arm muscle area
Somes GW et al, 2002, USA	Systolic Hypertension in the Elderly Program	1984-1990, 4.5 years follow-up	4485 men and women, age ≥60 years: 351 deaths	Measured	No	First 2 years of follow-up excluded in sensitivity analyses	BMI	<23.6 23.6-<28.0 28.0-<31.0 ≥31.0	1.35 (1.00-1.82) 1.00 1.02 (0.72-1.45) 1.15 (0.76-1.76)	Age, gender, current smoking status, presence of myocardial infarction, diabetes, stroke
Engeland A et al, 2003, Norway	Norwegian Tuberculosis Screening Program and Norwegian Health Surveys (Nord-	1963-2000 - 2001, 22.1 years follow-up	1977953 men and women, age 20-74 years: 722606 deaths  111846	Measured	No	Sensitivity analysis excluding first 4 years of follow-up (results did not change)	BMI, men	<17.50 17.50-18.49 18.50-19.49 19.50-20.49 20.50-21.49 21.50-22.49 22.50-23.49	1.74 (1.62-1.87) 1.43 (1.37-1.49) 1.29 (1.25-1.32) 1.18 (1.15-1.20) 1.09 (1.07-1.10) 1.02 (1.01-1.04) 1.00	Age, birth cohort, height

		(estimated) never smokers: 3776/ 4783 deaths (m/w)					23.50-24.99	1.00 (0.99-1.01)	
						BMI, women	25.00-27.49	1.04 (1.02-1.05)	
							27.50-29.99	1.13 (1.12-1.15)	
							30.00-32.49	1.29 (1.27-1.31)	
							32.50-34.99	1.47 (1.43-1.51)	
							35.00-37.49	1.74 (1.66-1.83)	
							37.50-39.99	1.90 (1.74-2.08)	
							≥40	2.53 (2.24-2.85)	
							<17.50	1.96 (1.87-2.06)	
							17.50-18.49	1.53 (1.47-1.59)	
							18.50-19.49	1.32 (1.29-1.36)	
							19.50-20.49	1.17 (1.14-1.20)	
							20.50-21.49	1.08 (1.06-1.11)	
							21.50-22.49	1.03 (1.01-1.05)	
							22.50-23.49	1.00	
							23.50-24.99	0.98 (0.97-1.00)	
							25.00-27.49	1.01 (0.99-1.02)	
							27.50-29.99	1.08 (1.06-1.09)	
							30.00-32.49	1.16 (1.14-1.18)	
							32.50-34.99	1.28 (1.25-1.30)	
							35.00-37.49	1.40 (1.37-1.43)	
							37.50-39.99	1.62 (1.57-1.67)	
							≥40	1.93 (1.86-2.00)	
						BMI, men, never smokers	<17.50	2.06 (0.91-4.63)	
							17.50-18.49	1.23 (0.71-2.15)	
							18.50-19.49	1.21 (0.85-1.73)	
							19.50-20.49	0.96 (0.73-1.27)	
							20.50-21.49	1.04 (0.86-1.26)	
							21.50-22.49	0.90 (0.77-1.07)	
							22.50-23.49	1.00	
							23.50-24.99	1.03 (0.91-1.17)	
							25.00-27.49	1.11 (0.98-1.25)	
							27.50-29.99	1.34 (1.18-1.53)	
							30.00-32.49	1.58 (1.35-1.85)	
							32.50-34.99	2.29 (1.85-2.83)	
							35.00-37.49	1.47 (1.01-2.15)	
							37.50-39.99	3.45 (2.09-5.69)	
							≥40	3.30 (1.93-5.64)	
						BMI, women, never smokers	<17.50	2.39 (1.65-3.45)	
							17.50-18.49	1.57 (1.13-2.18)	
							18.50-19.49	1.28 (1.02-1.62)	
							19.50-20.49	0.98 (0.81-1.18)	
							20.50-21.49	1.00 (0.86-1.18)	

								21.50-22.49 22.50-23.49 23.50-24.99 25.00-27.49 27.50-29.99 30.00-32.49 32.50-34.99 35.00-37.49 37.50-39.99 $\geq$ 40	0.95 (0.83-1.10) 1.00 0.91 (0.80-1.03) 0.97 (0.86-1.09) 1.06 (0.94-1.20) 1.19 (1.04-1.36) 1.23 (1.05-1.44) 1.45 (1.21-1.75) 1.61 (1.26-2.05) 2.47 (1.96-3.11)	
Lubin F et al, 2003, Israel	Israeli Population Registry	1982-2000, 18 years follow-up	632 men and women, age 41-70 years: 151 deaths	Measured	Excluded participant with diabetes or other chronic disease	No	BMI	<25 25-29.9 $\geq$ 30.0	1.00 0.76 (0.53-1.08) 1.02 (0.61-1.68)	Age, ethnicity, sex, smoking, SBP, physical activity, fatty acids, E% from fat, cholesterol, dietary fiber
Thorogood M et al, 2003, United Kingdom	Oxford Vegetarian Study	1980-1984 – 2000, 18 years follow-up	10858 men and women, age 16-89 years: 1134 deaths	Self-reported	Prevalent cancers excluded	First 5 years of follow-up excluded in sensitivity analyses (results not altered, but risk estimates not reported)	BMI	<18 18-<20 20-<22 22-<24 24-<26 26-<28 $\geq$ 28	2.07 (1.58-2.70) 1.24 (1.02-1.50) 1.00 1.12 (0.94-1.33) 1.29 (1.07-1.56) 1.15 (0.90-1.47) 1.28 (0.97-1.70)	Age, sex, smoking status and cigarettes per day, pre-existing cardiovascular disease or diabetes
Hosegood V et al, 2003, Bangladesh	Determinants of Natural Fertility Study	1975-79 - 1993, 19 years follow-up	1888 women, mean age 27.9 years: 102 deaths	Measured	No	No	BMI	<17.3 17.3-18.41 18.42-19.61 $\geq$ 19.62	1.00 0.82 (0.50-1.37) 0.46 (0.25-0.87) 0.89 (0.52-1.52)	Age, education
Kuriyama S et al, 2004, Japan	Miyagi Cohort Study	1990-2001, 10.4 years follow-up	39610 men and women, age 40-64 years: 1688 deaths	Self-reported	Prevalent cancers, stroke, myocardial infarction, kidney disease, and liver disease excluded	Excluded first 3 years of follow-up in sensitivity analyses	BMI, men  BMI, women	<18.5 18.5-20.9 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 $\geq$ 30.0 <18.5 18.5-20.9 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 $\geq$ 30.0	2.05 (1.53-2.74) 1.10 (0.92-1.31) 0.97 (0.83-1.15) 1.00 0.92 (0.76-1.12) 1.01 (0.80-1.29) 1.00 (0.62-1.60) 1.76 (1.16-2.67) 0.88 (0.66-1.17) 0.92 (0.72-1.17) 1.00 0.91 (0.70-1.17) 0.95 (0.70-1.27) 1.65 (1.13-2.40)	Age, weight loss of 5 kg or more since age 20 years old, marital status, cigarette smoking status and cigarettes per day, alcohol, walking time

						BMI, men, first 3 years of follow-up excluded	<18.5 18.5-20.9 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 ≥30.0 <18.5 18.5-20.9 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 ≥30.0	2.06 (1.49-2.84) 1.12 (0.92-1.36) 0.98 (0.82-1.17) 1.00 0.96 (0.77-1.18) 1.05 (0.81-1.36) 0.85 (0.49-1.49) 1.83 (1.17-2.88) 0.82 (0.60-1.14) 0.92 (0.70-1.19) 1.00 1.02 (0.78-1.34) 0.93 (0.67-1.28) 1.64 (1.09-2.49)		
Stevens J et al, 2004, Russia	Lipid Research Clinics Study - Russia	1972-77 – 1995, ~20.5 years follow-up	1359 Russian men, age 40-59 years: 211 deaths	Measured	Subjects with coronary heart disease, stroke, and BMI <18.5 were excluded	First year of follow-up was excluded	BMI	18.6-22.8 22.9-24.8 24.9-26.5 26.6-28.5 28.6-37.4	1.00 0.90 (0.56-1.44) 1.19 (0.74-1.92) 0.88 (0.53-1.44) 0.88 (0.55-1.41)	Age, smoking status and cigarettes per day, education, alcohol, Keys score
Sundquist K et al, 2004, Sweden	Swedish Annual Level-of-Living Survey	1988-89 – 2000, 12 years follow-up	3206 men and women, age 65-≥96 years: 881/925 deaths	Self-reported	No	No	BMI	≤18.5 18.6-<25.0 25.0-<30.0 ≥30.0	1.45 (1.16-1.81) 1.00 0.87 (0.78-0.96) 1.09 (0.91-1.30)	Age, sex, smoking status, physical activity, education
Maru S et al, 2004, Netherlands	Diagnostisch Onderzoek Mamma-carcinoom	1974-1977 – 1996, 17 years follow-up	8100 women, age 50-66 years: 1269 deaths	Measured	Prevalent medication use for hypertension, cardiovascular disease, or diabetes, or being on a salt-free or diabetic diet	No	BMI	21.6 24.4 26.5 30.5	1.0 0.9 (0.8-1.1) 1.1 (0.9-1.2) 1.4 (1.2-1.6)	Age, smoking status and cigarettes per day, weight change status within a year
Hu FB et al, 2004, USA	Nurses' Health Study	1976 – 2000, 24 years follow-up	116564 women, age 30-55 years: 10282 deaths  51080 never smokers: 3262	Self-reported (validated)	Prevalent cardiovascular disease and cancer excluded	No	BMI, all women	<21.0 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 30.0-32.9 33.0-34.9 35.0-39.9	1.00 0.91 (0.86-0.97) 0.92 (0.87-0.98) 0.99 (0.93-1.07) 1.26 (1.18-1.36) 1.57 (1.44-1.71) 1.73 (1.52-1.97) 2.02 (1.79-2.29)	Age, smoking status and cigarettes per day, PH – CHD, menopausal status and hormone use, alcohol, physical activity

			deaths 27194 former smokers: 1885 deaths  37596 current smokers: 5056 deaths			BMI, women who never smoked  BMI, former smokers  BMI, current smokers  BMI, all women  BMI, women who never smoked	$\geq 40.0$ $<21.0$ 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 30.0-32.9 33.0-34.9 35.0-39.9 $\geq 40.0$ $<21.0$ 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 30.0-32.9 33.0-34.9 35.0-39.9 $\geq 40.0$ $<25.0$ 25.0-29.9 $\geq 30.0$ $<25.0$ 25.0-29.9 $\geq 30.0$	2.89 (2.47-3.38) 1.00 1.02 (0.91-1.15) 1.09 (0.97-1.23) 1.23 (1.07-1.40) 1.61 (1.42-1.83) 1.96 (1.69-2.26) 2.10 (1.70-2.59) 2.29 (1.87-2.80) 3.71 (2.91-4.72) 1.00 0.94 (0.81-1.09) 1.05 (0.91-1.22) 1.01 (0.85-1.21) 1.27 (1.07-1.51) 1.68 (1.38-2.04) 1.83 (1.39-2.04) 2.44 (1.92-3.11) 3.52 (2.59-4.80) 1.00 0.86 (0.80-0.93) 0.83 (0.76-0.90) 0.90 (0.82-1.00) 1.13 (1.02-1.25) 1.34 (1.18-1.53) 1.60 (1.29-1.98) 1.79 (1.45-2.21) 2.07 (1.53-2.80) 1.00 1.13 (1.06-1.20) 1.69 (1.57-1.82) 1.00 1.36 (1.22-1.51) 1.99 (1.76-2.25)		
Hu G et al, 2005, Finland	Finnish MONICA study	1972-1997, 17.7 years follow-up	22528 men and 24684 women, age 25-64 years: 7394 deaths	Measured	Subjects with coronary heart disease, stroke, heart failure, cancer	First 2 years of follow-up were excluded in sensitivity analyses, but results were not altered (data not shown)	BMI, men  BMI, women	$<18.5$ 18.5-24.9 25.0-29.9 $\geq 30.0$ $<18.5$ 18.5-24.9 25.0-29.9 $\geq 30.0$	2.79 (1.85-4.22) 1.00 0.93 (0.87-1.00) 1.17 (1.07-1.28) 1.69 (1.15-2.48) 1.00 1.00 (0.91-1.10) 1.15 (1.04-1.27)	Age, study year, SBP, smoking status, cholesterol, diabetes, physical activity

Nyholm M et al, 2005, Sweden	Skaraborg Hypertension and Diabetes Project	1993-1994 – 1999, 5.5 years follow-up	1109 men and women, age $\geq 40$ years: 125 deaths	Measured	Subjects with prevalent CVD excluded in sensitivity analyses	No	BMI, men, all	<24.2 24.2-<26.3 26.3-<28.4 $\geq 28.4$	1.0 0.8 (0.61-1.1) 1.0 (0.7-1.3) 0.6 (0.4-0.9)	Age, smoking status, leisure-time physical activity
							BMI, men without previous CVD	<24.2 24.2-<26.3 26.3-<28.4 $\geq 28.4$	1.0 0.7 (0.4-1.2) 1.2 (0.8-1.8) 0.9 (0.5-1.5)	
							BMI, men with previous CVD	<24.2 24.2-<26.3 26.3-<28.4 $\geq 28.4$	1.0 0.7 (0.5-1.1) 0.6 (0.4-0.9) 0.4 (0.2-0.7)	
							BMI, women, all	<24.2 24.2-<26.3 26.3-<28.4 $\geq 28.4$	1.0 0.7 (0.5-1.1) 0.6 (0.4-1.0) 0.8 (0.6-1.2)	
							BMI, women without previous CVD	<24.2 24.2-<26.3 26.3-<28.4 $\geq 28.4$	1.0 0.8 (0.5-1.3) 0.5 (0.2-1.0) 0.9 (0.6-1.5)	
							BMI, women with previous CVD	<24.2 24.2-<26.3 26.3-<28.4 $\geq 28.4$	1.0 0.7 (0.4-1.4) 0.8 (0.4-1.3) 0.7 (0.4-1.3)	
Pajak A et al, 2005, Poland	POL-MONICA cohort study	1983-1994 - 1998, 10.7 years follow-up	5281 men and 5691 women, age 35-64 years: 914/430 deaths	Measured	No	No	BMI, men	18.4-20.0 20.0-21.9 22.0-23.9 24.0-25.9 26.0-27.9 28.0-29.9 30.0-31.9 32.0-34.9 35.0-47.8	2.27 (1.71-3.01) 1.28 (0.99-1.66) 1.00 1.05 (0.83-1.33) 1.02 (0.81-1.29) 0.98 (0.76-1.27) 1.09 (0.82-1.46) 1.41 (1.04-1.92) 1.73 (1.19-2.51)	Age, self-assessment of health, hypercholesterolemia, cigarette smoking, arterial hypertension, place of residence
							BMI, women	18.4-20.0 20.0-21.9 22.0-23.9 24.0-25.9 26.0-27.9 28.0-29.9 30.0-31.9 32.0-34.9 35.0-47.8	1.66 (1.01-2.72) 0.94 (0.60-1.47) 1.00 0.78 (0.54-1.14) 0.71 (0.48-1.05) 0.81 (0.55-1.19) 0.84 (0.55-1.26) 0.85 (0.56-1.28) 1.10 (0.75-1.62)	

Iribarren C et al, 2005, USA	The CARDIA Study	1985-1986 – 2000, 13 years follow-up	5115 men and women, age 18-30 years: 127 deaths	Measured	No	No	BMI	<18.5 18.5-24.9 25.0-29.9 ≥30.0	2.53 (1.22-5.24) 1.00 0.77 (0.50-1.19) 0.62 (0.36-1.08)	Age, sex, race, DM, liver disease, thyroid disease, smoking status, physical activity, hostility, social support, marital status
Jain MG et al, 2005, Canada	Canadian National Breast Screening Study Cohort	1980-1985 – 1998-2000, 16.5 years follow-up	49165 women, age 40-59 years: 2566 deaths	Measured	No	No	BMI	<18.5 18.5-21.9 22.0-24.9 25.0-27.9 28.0-29.9 30.0-34.9 ≥35.0	1.12 (0.99-1.25) 1.00 1.15 (1.11-1.18) 1.28 (1.24-1.32) 1.34 (1.29-1.39) 1.30 (1.25-1.35) 1.40 (1.33-1.47)	Age, number of pregnancies, menopausal status, smoking status, cigarette years, university education, mammography allocation, alcohol, energy intake
Hayashi R et al, 2005, Japan	Komochi Village and Isesaki City	1993 - 2000, 6.4 years follow-up	5554 men and 5827 women, age 40-69 years: 329/147 deaths	Self-reported	No	Exclusion of first 3 years of follow-up in sensitivity analyses	BMI, men  BMI, women  BMI, men, excluding first 3 years of follow-up  BMI, women, excluding first 3 years of follow-up	<18.5 18.5-21.9 22.0-24.9 25.0-27.9 ≥28.0  <18.5 18.5-21.9 22.0-24.9 25.0-27.9 ≥28.0  <18.5 18.5-21.9 22.0-24.9 25.0-27.9 ≥28.0  <18.5 18.5-21.9 22.0-24.9 25.0-27.9 ≥28.0  <18.5 18.5-21.9 22.0-24.9 25.0-27.9 ≥28.0  <18.5 18.5-21.9 22.0-24.9 25.0-27.9 ≥28.0	2.59 (1.74-3.85) 1.25 (0.94-1.66) 1.00 1.06 (0.74-1.53) 1.63 (0.93-2.87)  2.93 (1.62-5.30) 1.49 (0.94-2.35) 1.00 1.34 (0.78-2.31) 2.71 (1.51-4.88)  2.66 (1.59-4.46) 1.33 (0.93-1.91) 1.00 1.21 (0.78-1.90) 1.18 (0.51-2.74)  3.14 (1.38-7.13) 1.98 (1.07-3.65) 1.00 1.92 (0.96-3.84) 3.25 (1.48-7.15)	Age, physical activity, smoking status and cigarettes per day, alcohol, sleep, snacking, skipping breakfast, weight in 30's perceived health status, chronic diseases, health examination, occupation, marital status, education
Hjartåker A et al, 2005, Norway, Sweden	Women's Lifestyle and Health Cohort Study	1991-1992 – 2000, 9.1 years follow-up	93295 women, age 30-50 years: 1071 deaths	Self-reported	Prevalent cancers excluded in sensitivity analyses	First 1, 2, and 3 years follow-up excluded in sensitivity analyses	BMI, premenopausal women  BMI, postmenopausal women  BMI, premenopausal women, 1 <sup>st</sup> year of follow-up excluded	<18.5 18.5-24.9 25.0-29.9 ≥30.0  <18.5 18.5-24.9 25.0-29.9 ≥30.0  <18.5 18.5-24.9 25.0-29.9 ≥30.0  <18.5 18.5-24.9 25.0-29.9	1.26 (0.82-1.94) 1.00 1.24 (1.01-1.52) 2.24 (1.70-2.97)  1.52 (0.93-2.48) 1.00 0.86 (0.68-1.08) 1.27 (0.92-1.75)  1.21 (0.76-1.92) 1.00 1.30 (1.05-1.61)	Age, smoking status, years of education, physical activity

							BMI, postmenopausal women	$\geq 30.0$ $<18.5$ 18.5-24.9 25.0-29.9 $\geq 30.0$ $<18.5$ 18.5-24.9 25.0-29.9 $\geq 30.0$ $<18.5$ 18.5-24.9 25.0-29.9 $\geq 30.0$	2.16 (1.60-2.92) 1.56 (0.96-2.55) 1.00 0.85 (0.67-1.07) 1.28 (0.92-1.77) 1.39 (0.88-2.19) 1.00 1.22 (0.97-1.53) 2.54 (1.88-3.42) 1.39 (0.78-2.49) 1.00 0.83 (0.64-1.07) 1.35 (0.95-1.91)	
Chang-Claude J et al, 2005, Germany	The German Vegetarian Study	1978-1999, 21 years follow-up	1904 men and women, age <34- $\geq 75$ years: 456 deaths	Self-reported	No	No	BMI	<18.5 18.5-25.0 >25.0	1.13 (0.85-1.51) 1.00 1.12 (0.82-1.51)	Age, sex, smoking status, alcohol consumption, physical activity, education, vegetarian status
Breeze E et al, 2006, United Kingdom	Whitehall Study	1997-1998 – 2002, 5.4 years follow-up	3411 ever smoking men, age 40-69 years: 822 deaths	Measured	Prevalent CVD, MI, stroke, angina, diabetes, cancer, COPD, claudication excluded in sensitivity analyses	No	BMI, ever smokers  BMI, never smokers	<22.7 22.7-<24.4 24.4-<26.1 $\geq 26.1$ <22.7 22.7-<24.4 24.4-<26.1 $\geq 26.1$	1.20 (1.00-1.50) 1.00 0.93 (0.70-1.20) 1.00 (0.80-1.20) 1.26 (0.90-1.80) 1.00 0.78 (0.50-1.20) 1.39 (1.00-2.00)	Age, marital status, employment grade, alcohol, unable to do at least one activity of daily living, poor physical performance
Gu D et al, 2006, China	China National Hypertension Survey	1991 – 1999-2000, 8.3 years follow-up	154736 men and women, age $\geq 40$ years: 17687 deaths	Measured	Stratified analyses among high-risk participants (prevalent cardiovascular disease, stroke, cancer, end-stage renal disease, chronic obstructive pulmonary syndrome,	Sensitivity analyses excluding first 3 years of follow-up were reported	BMI, all  BMI, men	<18.5 18.5-19.9 20.0-20.9 21.0-21.9 22.0-22.9 23.0-23.9 24.0-24.9 25.0-26.9 27.0-29.9 $\geq 30.0$ <18.5 18.5-19.9 20.0-20.9 21.0-21.9 22.0-22.9	1.65 (1.54-1.77) 1.31 (1.22-1.41) 1.20 (1.11-1.29) 1.12 (1.04-1.21) 1.11 (1.03-1.20) 1.09 (1.01-1.19) 1.00 1.00 (0.92-1.08) 1.15 (1.06-1.24) 1.29 (1.16-1.42) 1.64 (1.49-1.80) 1.32 (1.20-1.45) 1.17 (1.06-1.30) 1.10 (0.99-1.22) 1.10 (0.99-1.22)	Age, sex, smoking status, alcohol, physical activity, education, geographic region, urbanization

					heavy alcohol or cigarette smokers) and healthy participants were conducted (risk estimates not reported)		BMI, women	23.0-23.9 24.0-24.9 25.0-26.9 27.0-29.9 $\geq$ 30.0 <18.5 18.5-19.9 20.0-20.9 21.0-21.9 22.0-22.9 23.0-23.9 24.0-24.9 25.0-26.9 27.0-29.9 $\geq$ 30.0	1.09 (0.98-1.21) 1.00 1.01 (0.91-1.13) 1.22 (1.10-1.37) 1.34 (1.15-1.55) 1.65 (1.49-1.84) 1.27 (1.14-1.42) 1.21 (1.08-1.36) 1.14 (1.01-1.28) 1.12 (1.00-1.26) 1.10 (0.97-1.24) 1.00 0.98 (0.87-1.10) 1.07 (0.94-1.20) 1.24 (1.08-1.43)	
Adams KF et al, 2006, USA	NIH-AARP Diet and Health Study	1995-96 – 2005, 10 years follow-up	527265 men and women, age 50-71 years: 61317 deaths  91906/94327 never smokers: 7826/5670 deaths  173036/79527 former smokers: 35886 deaths  37272/34090 current smokers: 14269 deaths	Self-reported	Analyses were stratified for pre-existing chronic disease	Analyses were stratified for duration of follow-up (all subjects)	BMI, all men  BMI, current smokers	<18.5 18.5-20.9 21.0-23.4 23.5-24.9 25.0-26.4 26.5-27.9 28.0-29.9 30.0-34.9 35.0-39.9 $\geq$ 40.0 <18.5 18.5-20.9 21.0-23.4 23.5-24.9 25.0-26.4 26.5-27.9 28.0-29.9 30.0-34.9 35.0-39.9 $\geq$ 40.0	1.97 (1.76-2.20) 1.54 (1.45-1.63) 1.14 (1.10-1.18) 1.00 0.95 (0.91-0.98) 0.95 (0.92-0.98) 1.00 (0.96-1.04) 1.10 (1.06-1.14) 1.35 (1.28-1.42) 1.83 (1.70-1.97) 1.90 (1.60-2.26) 1.38 (1.26-1.52) 1.08 (1.01-1.7) 1.00 0.88 (0.81-0.94) 0.82 (0.76-0.89) 0.91 (0.85-0.99) 1.00 (0.93-1.08) 1.09 (0.96-1.24) 1.42 (1.16-1.74)	Age, race/ ethnic group, education, smoking status, physical activity, alcohol

						BMI, former smokers	<18.5	2.17 (1.82-2.59)
						18.5-20.9	1.79 (1.64-1.95)	
						21.0-23.4	1.19 (1.13-1.26)	
						23.5-24.9	1.00	
						25.0-26.4	0.98 (0.93-1.03)	
						26.5-27.9	0.96 (0.91-1.01)	
						28.0-29.9	1.00 (0.95-1.05)	
						30.0-34.9	1.07 (1.02-1.12)	
						35.0-39.9	1.30 (1.22-1.39)	
						≥40.0	1.74 (1.58-1.92)	
					BMI, never smokers	<18.5	1.67 (1.24-2.24)	
						18.5-20.9	1.29 (1.12-1.49)	
						21.0-23.4	1.09 (1.00-1.19)	
						23.5-24.9	1.00	
						25.0-26.4	0.97 (0.89-1.05)	
						26.5-27.9	1.09 (1.00-1.18)	
						28.0-29.9	1.20 (1.10-1.30)	
						30.0-34.9	1.39 (1.28-1.51)	
						35.0-39.9	1.91 (1.70-2.15)	
						≥40.0	2.59 (2.20-3.06)	
					BMI, preexisting chronic disease	<18.5	1.91 (1.66-2.20)	
						18.5-20.9	1.60 (1.48-1.73)	
						21.0-23.4	1.20 (1.13-1.26)	
						23.5-24.9	1.00	
						25.0-26.4	0.94 (0.90-0.99)	
						26.5-27.9	0.91 (0.86-0.96)	
						28.0-29.9	0.94 (0.89-0.99)	
						30.0-34.9	0.98 (0.93-1.03)	
						35.0-39.9	1.10 (1.02-1.18)	
						≥40.0	1.41 (1.26-1.57)	
					BMI, no preexisting chronic disease	<18.5	1.70 (1.42-2.04)	
						18.5-20.9	1.35 (1.24-1.47)	
						21.0-23.4	1.08 (1.02-1.13)	
						23.5-24.9	1.00	
						25.0-26.4	0.96 (0.91-1.01)	
						26.5-27.9	0.99 (0.94-1.04)	
						28.0-29.9	1.06 (1.00-1.11)	
						30.0-34.9	1.19 (1.14-1.25)	
						35.0-39.9	1.57 (1.57-1.69)	
						≥40.0	2.24 (2.02-2.49)	

					BMI, all women	<18.5	2.03 (1.84-2.25)
						18.5-20.9	1.30 (1.22-1.38)
						21.0-23.4	1.07 (1.01-1.13)
						23.5-24.9	1.00
						25.0-26.4	1.00 (0.94-1.07)
						26.5-27.9	1.06 (0.99-1.12)
						28.0-29.9	1.07 (1.01-1.14)
						30.0-34.9	1.18 (1.12-1.25)
						35.0-39.9	1.49 (1.39-1.60)
						≥40.0	1.94 (1.79-2.09)
					BMI, current smokers	<18.5	1.87 (1.62-2.17)
						18.5-20.9	1.24 (1.12-1.37)
						21.0-23.4	1.01 (0.92-1.11)
						23.5-24.9	1.00
						25.0-26.4	0.96 (0.86-1.07)
						26.5-27.9	0.88 (0.78-0.99)
						28.0-29.9	0.94 (0.83-1.05)
						30.0-34.9	1.10 (0.99-1.22)
						35.0-39.9	1.28 (1.10-1.49)
						≥40.0	1.61 (1.33-1.93)
					BMI, former smokers	<18.5	2.45 (2.03-2.96)
						18.5-20.9	1.41 (1.27-1.57)
						21.0-23.4	1.13 (1.04-1.24)
						23.5-24.9	1.00
						25.0-26.4	1.00 (0.91-1.11)
						26.5-27.9	1.10 (0.99-1.21)
						28.0-29.9	1.09 (0.99-1.20)
						30.0-34.9	1.13 (1.04-1.24)
						35.0-39.9	1.39 (1.25-1.54)
						≥40.0	1.75 (1.56-1.97)
					BMI, never smokers	<18.5	1.70 (1.35-2.15)
						18.5-20.9	1.21 (1.06-1.37)
						21.0-23.4	1.06 (0.96-1.18)
						23.5-24.9	1.00
						25.0-26.4	1.09 (0.97-1.22)
						26.5-27.9	1.21 (1.08-1.36)
						28.0-29.9	1.27 (1.13-1.42)
						30.0-34.9	1.38 (1.25-1.53)
						35.0-39.9	1.82 (1.62-2.06)
						≥40.0	2.52 (2.20-2.88)

							BMI, preexisting chronic disease	<18.5 18.5-20.9 21.0-23.4 23.5-24.9 25.0-26.4 26.5-27.9 28.0-29.9 30.0-34.9 35.0-39.9 ≥40.0	2.02 (1.75-2.32) 1.32 (1.21-1.45) 1.01 (0.93-1.09) 1.00 0.94 (0.85-1.03) 0.98 (0.89-1.07) 0.94 (0.86-1.03) 0.95 (0.87-1.03) 1.21 (1.10-1.34) 1.29 (1.15-1.45)	
							BMI, no preexisting chronic disease	<18.5 18.5-20.9 21.0-23.4 23.5-24.9 25.0-26.4 26.5-27.9 28.0-29.9 30.0-34.9 35.0-39.9 ≥40.0	1.86 (1.61-2.14) 1.26 (1.16-1.37) 1.12 (1.04-1.20) 1.00 1.05 (0.97-1.14) 1.11 (1.02-1.21) 1.15 (1.06-1.25) 1.34 (1.24-1.44) 1.61 (1.47-1.77) 2.42 (2.18-2.68)	
Tsai SP et al, 2006, USA	Shell Oil Company	1983-2003, 20 years follow-up	7139 men and women, age ≥30 years: 970 deaths	NA	No	No	BMI	18.5-24.9 25.0-29.9 ≥30.0	1.00 0.94 (0.80-1.09) 1.25 (1.03-1.51)	Age, sex, smoking status
Van Dam RM et al, 2006, USA	Nurses' Health Study 2	1989 – 2001, 12 years follow-up	102400 women, age 24-44 years: 710 deaths	Self-reported	Prevalent cancers or pregnancy at study initiation were excluded	No	BMI	<18.5 18.5-21.9 22.0-24.9 25.0-29.9 30.0-34.9 ≥35.0	1.67 (1.15-2.42) 1.00 1.16 (0.96-1.41) 1.29 (1.04-1.59) 1.35 (1.01-1.80) 2.14 (1.61-2.85)	Age, smoking status and cigarettes per day, physical activity, alcohol, HRT, OC use
Jee SH et al, 2006, Korea	Korea National Health Insurance Corporation Study	1992-1995 – 2004, 12 years follow-up	1213829 men and women, age 30-95 years: 82372 deaths  160276/	Measured	Atherosclerotic CVD, cancer, liver disease, diabetes, respiratory	First two years of follow-up excluded in main analyses	BMI, men	<18.5 18.5-19.9 20.0-21.4 21.5-22.9 23.0-24.9 25.0-26.4 26.5-27.9	1.35 (1.30-1.41) 1.19 (1.15-1.23) 1.16 (1.13-1.20) 1.09 (1.06-1.12) 1.00 0.97 (0.94-1.00) 0.99 (0.95-1.03)	Age, cigarette smoking status and number of cigarettes per day, alcohol, exercise

		415790 never smokers: 9657 /18558 deaths		disease				
		610280 ever smokers (men): 48655				BMI, women	28.0-29.9 30.0-31.9 ≥32.0 <18.5 18.5-19.9 20.0-21.4 21.5-22.9 23.0-24.9 25.0-26.4 26.5-27.9 28.0-29.9 30.0-31.9 ≥32.0	1.06 (1.00-1.12) 1.20 (1.08-1.34) 2.11 (1.78-2.50) 1.16 (1.09-1.23) 1.11 (1.05-1.17) 0.99 (0.95-1.04) 1.00 (0.95-1.04) 1.00 0.98 (0.94-1.03) 1.02 (0.97-1.08) 1.09 (1.02-1.16) 1.16 (1.06-1.28) 1.22 (1.08-1.38)
						BMI, men, never smokers	<18.5 18.5-19.9 20.0-21.4 21.5-22.9 23.0-24.9 25.0-26.4 26.5-27.9 28.0-29.9 30.0-31.9 ≥32.0	1.3 (1.2-1.4) 1.1 (1.0-1.2) 1.0 (1.0-1.1) 1.0 (0.9-1.1) 1.0 1.0 (0.9-1.1) 1.1 (1.0-1.2) 1.1 (1.0-1.3) 1.5 (1.3-1.9) 2.5 (1.8-3.5)
						BMI, men, ever smokers	<18.5 18.5-19.9 20.0-21.4 21.5-22.9 23.0-24.9 25.0-26.4 26.5-27.9 28.0-29.9 30.0-31.9 ≥32.0	1.4 (1.3-1.4) 1.2 (1.1-1.2) 1.2 (1.1-1.2) 1.1 (1.1-1.1) 1.0 1.0 (0.9-1.0) 1.0 (0.9-1.0) 1.0 (1.0-1.1) 1.1 (1.0-1.3) 2.1 (1.7-2.5)
						BMI, women, never smokers	<18.5 18.5-19.9 20.0-21.4 21.5-22.9 23.0-24.9 25.0-26.4 26.5-27.9 28.0-29.9 30.0-31.9 ≥32.0	1.2 (1.1-1.3) 1.1 (1.0-1.1) 1.0 (1.0-1.0) 1.0 (1.0-1.1) 1.0 1.0 (0.9-1.0) 1.0 (1.0-1.1) 1.1 (1.1-1.2) 1.2 (1.1-1.3) 1.2 (1.1-1.4)

Lawlor DA et al, 2006, Scotland	Renfrew/Paisley study	1972-1976 – 2004, 28 years follow-up	8327 women and 7017 men, age 45-64 years: 5242/5019 deaths (m/w)  1112/3652 never smokers: 666/1986 deaths  7242 current smokers 5158 deaths	Measured	No	Sensitivity analyses excluding first 5 years of follow-up	BMI, men  BMI, women  BMI, men, never smokers, excl. first 5 years  BMI, women, never smokers, excl. first 5 years  BMI, men, current smokers, excl. first 5 years  BMI, women, current smokers, excl. first 5 years	<18.5  18.5-<25  25-<30  ≥30  <18.5  18.5-<25  25-<30  ≥30  18.5-<25  25-<30  ≥30  18.5-<25  25-<30  ≥30  <18.5  18.5-<25  25-<30  ≥30  <18.5  18.5-<25  25-<30  ≥30	1.34 (1.00-1.81)  1.00  0.90 (0.85-0.95)  1.08 (0.99-1.19)  1.80 (1.52-2.14)  1.00  0.97 (0.91-1.03)  1.28 (1.18-1.38)  1.00  1.38 (1.16-1.66)  2.10 (1.66-2.66)  1.00  1.12 (1.01-1.23)  1.56 (1.39-1.76)  1.09 (0.76-1.57)  1.00  0.95 (0.88-1.02)  1.08 (0.94-1.24)  1.57 (1.28-1.93)  1.00  0.99 (0.90-1.08)  1.24 (1.09-1.40)	Age
Lawlor DA et al, 2006, Scotland	Collaborative Study	1970-1973 – 2004, 34 years follow-up	4016 men, age 45-64 years: 2957 deaths  573 never smokers: 302 deaths  2116 current smokers 1609 deaths	Measured	No	Sensitivity analyses excluding first 5 years of follow-up	BMI  BMI, never smokers, excl. first 5 years  BMI, men, current smokers, excl. first 5 years	<18.5  18.5-<25  25-<30  ≥30  18.5-<25  25-<30  ≥30  <18.5  18.5-<25  25-<30  ≥30	1.36 (0.94-1.98)  1.00  1.01 (0.94-1.09)  1.28 (1.11-1.49)  1.00  1.23 (0.96-1.58)  1.96 (1.35-2.84)  1.25 (0.82-1.90)  1.00  1.10 (1.00-1.22)  1.22 (0.97-1.54)	Age
Price GM et al, 2006, United Kingdom	The MRC Trial of Assessment and Management of Older People in the Community	NA – 2002, 5.9 years follow-up	14833 men and women, age >75 years: 6649 deaths	Measured	Prevalent cancer, MI, stroke, diabetes, Parkinson's disease, hip fracture, angina, weight loss, pneumonia,	First 1 and 2 years excluded in sensitivity analyses	BMI, nonsmoking men (not current smoking)  BMI, nonsmoking women	15.9-23.0  >23.0-25.0  >25.0-26.7  >26.7-29.0  >29.0-40.4  14.7-22.3  >22.3-24.6  >24.6-26.8  >26.8-29.7  >29.7-45.2	1.00  0.84 (0.71-0.98)  0.77 (0.67-0.88)  0.73 (0.63-0.85)  0.78 (0.68-0.90)  1.00  0.92 (0.83-1.02)  0.73 (0.65-0.83)  0.76 (0.67-0.87)  0.82 (0.71-0.93)	Age, height, serious illness in loved one in the past year, depression, cognitive impairment, unexplained recent weight loss >3.2 kg, housing type, UK quintiles of Carstairs area deprivation score, former smoking (in nonsmokers only), alcohol

					leg ulcer, cognitively impaired, not able to carry out 1 or more ADLs, $\geq 2$ falls in previous 6 months, no physical activity excluded in sensitivity analyses		BMI, smoking men	15.9-23.0 $>23.0$ -25.0 $>25.0$ -26.7 $>26.7$ -29.0 $>29.0$ -40.4 14.7-22.3 $>22.3$ -24.6 $>24.6$ -26.8 $>26.8$ -29.7 $>29.7$ -45.2	1.00 0.65 (0.50-0.86) 0.51 (0.38-0.70) 0.75 (0.61-1.11) 0.73 (0.49-1.10) 1.00 0.76 (0.55-1.04) 0.60 (0.41-0.88) 0.51 (0.34-0.78) 0.43 (0.27-0.67)	
Schooling CM et al, 2006, China	Hong Kong Elderly	1998-2003, 4.1 years follow-up	56167 men and women, age $\geq 65$ years: 3819 deaths	Unclear (recorded)	Stratified analyses by number of co-morbidities	No	BMI	<18.5 18.5-<23 23-<25 $\geq 25$ $<18.5$ $18.5$ -<23 23-<25 $\geq 25$	1.78 (1.61-1.97) 1.00 0.84 (0.77-0.92) 0.75 (0.70-0.82) 1.72 (1.51-1.97) 1.00 0.87 (0.78-0.97) 0.83 (0.75-0.92) 1.76 (1.00-3.08) 1.00 0.96 (0.58-1.59) 1.54 (1.02-2.33) 1.41 (1.01-1.97) 1.00 1.04 (0.81-1.33) 0.98 (0.78-1.239) 2.22 (1.81-2.73) 1.00 0.82 (0.68-0.99) 0.72 (0.61-0.85) 1.81 (1.45-2.26) 1.00 0.70 (0.58-0.84) 0.64 (0.55-0.75) 1.76 (1.51-2.07) 1.00 0.72 (0.63-0.83) 0.55 (0.49-0.63)	Age, sex, education, ever drinking alcohol, ever smoking, monthly personal expenditure, housing, physical activity

Baldinger B et al, 2006, Switzerland	Cohort of Swiss Insured Males	1976-2001, 8.2 years follow-up	22927 men, mean age 39 years: 588 deaths	Measured	No	No	BMI	<18.5 18.5-24.9 25.0-29.9 ≥30.0	1.84 (0.76-4.48) 1.00 1.06 (0.89-1.27) 1.76 (1.34-2.30)	Age, calendar year, blood pressure, smoking, impaired glucose metabolism, history of other disease
Ray AL et al, 2006, USA	Women's Health and Aging Study 1 & 2	1992-1997, 5 years follow-up	632 women, age ≥65 years: 89 deaths	NA	No	No	BMI	<18.5 18.5-24.9 25.0-29.9 ≥30.0	2.69 (1.07-6.72) 1.00 0.59 (0.31-1.13) 0.97 (0.51-1.82)	Age, education, alcohol, smoking status, fair-to-poor appetite, diabetes mellitus, CVD, renal disease, serum selenium
Freedman DM et al, 2006, USA	The US Radiologic Technologists study	1983-89 – 2000, 14.7 years follow-up	64733 women and 19011 men, age <35-≥65 years: 2278 / 1495 deaths  32749/7392 never smokers: 850/365 deaths	Self-reported	Cancer, myocardial infarction	First 5 years of follow-up excluded in sensitivity analyses	BMI, all women  BMI, women who never smoked  BMI, women who never smoked and excluding 1st 5 years of follow-up  BMI, all men  BMI, men who never smoked	<18.5 18.5-20.9 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 30.0-34.9 ≥35.0  <18.5 18.5-20.9 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 30.0-34.9 ≥35.0  <18.5 18.5-20.9 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 30.0-34.9 ≥35.0  <18.5 18.5-20.9 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 30.0-34.9 ≥35.0  <18.5 18.5-20.9 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 30.0-34.9 ≥35.0  <18.5 18.5-20.9 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 30.0-34.9 ≥35.0  <18.5 18.5-20.9	1.64 (1.35-1.98) 1.09 (0.96-1.24) 1.00 1.03 (0.90-1.18) 1.15 (0.99-1.34) 1.38 (1.18-1.60) 1.25 (1.04-1.50) 2.10 (1.67-2.65)  1.55 (1.10-2.17) 0.99 (0.80-1.23) 1.00 1.02 (0.82-1.26) 1.30 (1.02-1.65) 1.36 (1.07-1.74) 1.10 (0.82-1.49) 2.14 (1.48-3.09)  1.05 (0.68-1.61) 0.94 (0.74-1.19) 1.00 1.00 (0.79-1.26) 1.30 (1.00-1.69) 1.40 (1.08-1.82) 1.07 (0.77-1.47) 2.37 (1.62-3.48)  1.34 (0.80-2.23) 1.43 (1.14-1.79) 1.00 0.98 (0.83-1.16) 0.79 (0.67-0.94) 0.88 (0.74-1.05) 1.42 (0.94-2.15) 1.84 (1.33-2.56)  0.90 (0.32-2.55) 1.13 (0.68-1.88)	Age, birth cohort, smoking status and duration, alcohol, race, education



							never smokers	25.0-29.9 30.0-34.9 $\geq 35.0$	0.77 (0.57-1.03) 1.15 (0.70-1.89) 3.16 (1.27-7.84)	
							BMI, men, age <65 years, former smokers	18.5-24.9 25.0-29.9 30.0-34.9 $\geq 35.0$	1.19 (0.90-1.58) 1.04 (0.79-1.37) 1.90 (1.33-2.72) 2.05 (1.07-3.95)	
							BMI, men, age $\geq 65$ years, former smokers	18.5-24.9 25.0-29.9 30.0-34.9 $\geq 35.0$	1.15 (0.90-1.48) 1.11 (0.86-1.42) 1.79 (1.26-2.55) 1.40 (0.59-3.30)	
							BMI, men, age <65 years, current smokers	18.5-24.9 25.0-29.9 30.0-34.9 $\geq 35.0$	2.45 (1.91-3.15) 2.14 (1.64-2.79) 2.26 (1.49-3.44) 4.19 (2.38-7.37)	
							BMI, men, age $\geq 65$ years, current smokers	18.5-24.9 25.0-29.9 30.0-34.9 $\geq 35.0$	2.36 (1.81-3.09) 2.28 (1.69-3.08) 2.80 (1.52-5.16) 4.29 (1.73-10.64)	
Tice JA et al, 2006, USA	The Breast and Bone Follow-up of the Fracture Intervention Trial (B-FIT)	1990-1992 – 2001, 9 years follow-up	17748 postmenopausal women, age 55-80 years: 1886 deaths	Measured	No	No	BMI	<18.5 18.5-24.9 25.0-29.9 30.0-34.9 $\geq 35$	1.9 (1.4-2.5) 1.0 0.8 (0.7-0.9) 0.7 (0.6-0.8) 0.7 (0.6-0.9)	Age, hypertension, DM, heart disease, stroke, breast cancer, HRT, weight loss, self-reported health status, smoking status and pack-years, alcohol, physical function scale, WHR, SBP, heart rate, timed up and go test, grip strength
Corrada MM et al, 2006, USA	Leisure World Cohort Study	1981-2004, 23 years follow-up	13451 men and women, mean age 73 years: 11203 deaths	Self-reported	No	Excluding first 5 years of follow-up in sensitivity analyses	BMI	17.6 22.4 26.5 31.6 17.6 22.4 26.5 31.6	1.50 (1.37-1.64) 1.00 0.99 (0.95-1.03) 1.18 (1.07-1.31) 1.38 (1.24-1.54) 1.00 1.02 (0.98-1.08) 1.22 (1.10-1.37)	Age, sex, smoking status, activity
Gale CR et al, 2007, UK	UK Department of Health and Social Security Survey	1973-1974 - NA, 24 years follow-up	800 men and women, age $\geq 65$ years: 756 deaths	Measured	No	Sensitivity analyses excluding first 5 years of follow-up	BMI	<18.5 18.5-24.9 25-29.9 $\geq 30$ <18.5 18.5-24.9 25-29.9	1.41 (0.90-2.38) 1.00 1.00 (0.74-1.34) 1.14 (0.76-1.71) 2.03 (1.15-3.59) 1.00 1.05 (0.76-1.45)	Age, height, social class, smoking status, reported change in weight, calories, physical activity, diagnosed disease at baseline

							$\geq 30$	1.41 (1.05-2.07)	
Smith TC et al, 2007, USA	Rancho Bernardo Study	1984-1986 – 1996, 10 years follow-up	1627 men and women, age 50-90 years: 538 deaths	Measured	No	No	BMI	<18.5 18.5-25.0 25.0-29.9 $\geq 30.0$	1.52 (0.90-2.59) 1.00 0.86 (0.71-1.04) 1.02 (0.72-1.43)
Janssen I, 2007, USA	Cardiovascular Health Study	1989-1990 - NA, 9 years follow-up	4968 men and women, age $\geq 65$ years: 1464 deaths	Measured	No	No	BMI, all	20-24.9 25-29.9 $\geq 30$	1.00 0.92 (0.82 to 1.03) 0.94 (0.80 to 1.09)
							BMI, men	20-24.9 25-29.9 $\geq 30$	1.00 0.93 (0.80 to 1.08) 0.88 (0.71 to 1.10)
							BMI, women	20-24.9 25-29.9 $\geq 30$	1.00 0.90 (0.75 to 1.07) 0.98 (0.79 to 1.22)
							BMI, age 65-74 years	20-24.9 25-29.9 $\geq 30$	1.00 1.01 (0.85 to 1.22) 1.02 (0.82 to 1.27)
							BMI, age $\geq 75$ years	20-24.9 25-29.9 $\geq 30$	1.00 0.88 (0.76 to 1.02) 0.80 (0.64 to 1.01)
							BMI, none to passive smoke exposure	20-24.9 25-29.9 $\geq 30$	1.00 0.82 (0.69 to 0.98) 0.86 (0.68 to 1.08)
							BMI, light to high smoking exposure	20-24.9 25-29.9 $\geq 30$	1.00 0.99 (0.85 to 1.16) 1.02 (0.83 to 1.26)
							BMI, all	20-24.9 25-29.9 $\geq 30$	1.00 0.89 (0.80 to 0.99) 0.83 (0.71 to 0.97)
							BMI, men	20-24.9 25-29.9 $\geq 30$	1.00 0.91 (0.78 to 1.06) 0.77 (0.61 to 0.97)
							BMI, women	20-24.9 25-29.9 $\geq 30$	1.00 0.85 (0.71 to 1.01) 0.88 (0.71 to 1.10)
							BMI, age 65-74 years	20-24.9 25-29.9 $\geq 30$	1.00 0.91 (0.76 to 1.09) 0.83 (0.66 to 1.04)
							BMI, age $\geq 75$ years	20-24.9 25-29.9 $\geq 30$	1.00 0.89 (0.76 to 1.03) 0.73 (0.58 to 0.92)
							BMI, none to passive smoke	20-24.9	1.00

							exposure BMI, light to high smoking exposure	25-29.9 ≥30 20-24.9 25-29.9 ≥30	0.79 (0.67 to 0.94) 0.79 (0.62 to 0.99) 1.00 0.96 (0.82 to 1.12) 0.88 (0.71 to 1.09)	
Sai XY et al, 2007, China	Xi'an male veterans	1987 – 2005, 18 years follow-up	1268 retired military men, age ≥55 years: 491 deaths	Measured	No	No	BMI	<18.5 18.5-23.9 24-27.9 ≥28	2.03 (1.33-3.11) 1.00 1.03 (0.85-1.25) 1.20 (0.90-1.62)	Age, SBP, cigarettes per day, duration of smoking, age of starting smoking total cholesterol, TG, alcohol, exercise, prevalent cancer, stroke, diabetes, CHD, hypertension, COPD, cerebral arteriosclerosis
Greenberg JA et al, 2007, USA	Atherosclerosis Risk in Communities Study	1993-1995 – 1996-1998, 5.3 years follow-up	12457 men and women, age 51-70 years: 606 deaths	Measured	Exclusion of subjects ever smokers, MI, HF, stroke, DM, cancer, chronic lung disease	No	BMI, no correction for regression dilution  BMI, correction for regression dilution  BMI, correction for regression dilution and reverse causation	18.5-<25 25-<30 30-<35 ≥35 18.5-<25 25-<30 30-<35 ≥35 18.5-<25 25-<30 30-<35 ≥35	1.00 0.88 (0.72-1.08) 1.14 (0.91-1.44) 1.24 (0.93-1.66) 1.00 1.00 (0.82-1.23) 1.31 (1.04-1.66) 1.54 (1.14-2.08) 1.00 2.07 (1.01-4.24) 2.71 (1.25-5.89) 4.02 (1.72-9.43)	Age, sex, race, smoking status, alcohol
Al Snih et al, 2007, USA	Established Populations for Epidemiologic Studies of the Elderly	1982-1993 – NA, 7 years follow-up	12725 men and women, age ≥65 years: 3122 deaths	Measured	Subjects with limitation in activities of daily living	No	BMI	<18.5 18.5-<25.0 25.0-<30.0 30.0-<35.0 35.0-<40.0 ≥40.0	1.53 (1.31-1.80) 1.00 0.78 (0.72-0.85) 0.80 (0.72-0.90) 1.02 (0.84-1.24) 1.13 (0.79-1.60)	Age, sex
Flegal KM et al, 2007, USA	National Health and Nutrition Examination Survey 1, 2 and 3	NHANES 1: 1971-1975 – 1992, ~19 years follow-up NHANES 2: 1976-1980 – 1992, ~14 years follow-up	52590 men and women, age ≥25 years: 8418 deaths 19547 never smokers: 2412 deaths	Measured	Prevalent cancers and CVD excluded in sensitivity analyses	First 3 years of follow-up excluded in sensitivity analyses	BMI, age 25-59 years  BMI, age 25-59 years, excluded cancer and CVD  BMI, age 25-59 years, excluded cancer and CVD	<18.5 18.5-<25 25.0-<30.0 30.0-<35.0 ≥35.0 <18.5 18.5-<25 25.0-<30.0 30.0-<35.0 ≥35.0 <18.5 18.5-<25	1.38 (0.82-2.32) 1.00 0.83 (0.65-1.06) 1.20 (0.84-1.72) 1.83 (1.27-2.62) 1.64 (0.94-2.88) 1.00 0.89 (0.69-1.16) 1.06 (0.73-1.53) 2.05 (1.39-3.02) 1.54 (0.33-7.06) 1.00	Sex, smoking status, racial/ethnic group, alcohol

	NHANES 3: 1988- 1994 – 2000, ~9 years follow-up					and ever smokers	25.0-<30.0 30.0-<35.0 ≥35.0	0.73 (0.40-1.35) 0.86 (0.49-1.50) 1.39 (0.81-2.41)
						BMI, age 25-59 years, excluded cancer and CVD, ever smokers and first 3 years of follow-up	<18.5 18.5-<25 25.0-<30.0 30.0-<35.0 ≥35.0	0.77 (0.22-2.66) 1.00 0.83 (0.42-1.65) 0.80 (0.44-1.43) 1.62 (0.90-2.90)
						BMI, age 60-69 years	<18.5 18.5-<25 25.0-<30.0 30.0-<35.0 ≥35.0	2.30 (1.70-3.13) 1.00 0.95 (0.80-1.13) 1.13 (0.89-1.42) 1.63 (1.16-2.30)
						BMI, age 60-69 years, excluded cancer and CVD	<18.5 18.5-<25 25.0-<30.0 30.0-<35.0 ≥35.0	2.28 (1.52-3.43) 1.00 0.95 (0.77-1.15) 1.15 (0.90-1.48) 1.80 (1.16-2.81)
						BMI, age 60-69 years, excluded cancer and CVD and ever smokers	<18.5 18.5-<25 25.0-<30.0 30.0-<35.0 ≥35.0	3.34 (1.26-8.80) 1.00 0.67 (0.45-1.00) 1.29 (0.85-1.96) 2.18 (1.24-3.82)
						BMI, age 60-69 years, excluded cancer and CVD, ever smokers and first 3 years of follow-up	<18.5 18.5-<25 25.0-<30.0 30.0-<35.0 ≥35.0	1.85 (0.70-4.89) 1.00 0.71 (0.46-1.11) 1.36 (0.84-2.19) 2.47 (1.37-4.45)
						BMI, age ≥70 years	<18.5 18.5-<25 25.0-<30.0 30.0-<35.0 ≥35.0	1.69 (1.38-2.07) 1.00 0.91 (0.83-1.01) 1.03 (0.91-1.17) 1.17 (0.94-1.47)
						BMI, age ≥70 years, excluded cancer and CVD	<18.5 18.5-<25 25.0-<30.0 30.0-<35.0 ≥35.0	1.73 (1.38-2.16) 1.00 0.86 (0.77-0.97) 1.05 (0.91-1.21) 1.16 (0.91-1.48)
						BMI, age ≥70 years, excluded cancer and CVD and ever smokers	<18.5 18.5-<25 25.0-<30.0 30.0-<35.0 ≥35.0	1.68 (1.19-2.37) 1.00 0.83 (0.70-0.99) 1.14 (0.93-1.41) 1.07 (0.81-1.42)

						BMI, age $\geq$ 70 years, excluded cancer and CVD, ever smokers and first 3 years of follow-up	<18.5 18.5-<25 25.0-<30.0 30.0-<35.0 $\geq$ 35.0	1.85 (1.28-2.68) 1.00 0.84 (0.71-1.00) 1.16 (0.96-1.42) 1.16 (0.85-1.56)		
Mazza A et al, 2007, Italy	The Experience of Cardiovascular Study in the Elderly (CASTEL)	NA-NA, 12 years follow-up	3282 men and women, age 65-96 years: 1599 deaths  441 never smokers: 224 deaths	Measured	No	First two years of follow-up excluded in sensitivity analyses	BMI, men, all  BMI, excluding early deaths  BMI, excluding current smokers  BMI, excluding ex-smokers	<22.7 22.7-24.9 25.0-26.5 26.6-29.0 $\geq$ 29.0  <22.7 22.7-24.9 25.0-26.5 26.6-29.0 $\geq$ 29.0  <22.7 22.7-24.9 25.0-26.5 26.6-29.0 $\geq$ 29.0  <22.7 22.7-24.9 25.0-26.5 26.6-29.0 $\geq$ 29.0	1.63 (1.23-2.71) 1.28 (0.92-1.73) 1.20 (0.85-1.67) 1.16 (0.82-1.32) 1.00  1.54 (1.15-2.18) 1.17 (0.94-1.78) 1.24 (0.96-1.44) 1.21 (0.78-1.31) 1.00  1.52 (1.10-2.00) 1.20 (0.84-1.42) 1.10 (0.92-1.54) 1.10 (0.88-1.61) 1.00  1.33 (1.16-2.2) 1.20 (0.92-1.55) 1.20 (0.78-1.34) 1.10 (0.79-1.36) 1.00	Age, COPD, cigarette smoking status, duration of smoking, alcohol, serum total cholesterol, history of CVD, arterial hypertension, diabetes, serum creatinine
Simpson JA et al, 2007, Australia	Melbourne Collaborative Cohort Study	1990-1994 – 2003, 11 years follow-up	16969 men and 24344 women, age 27-75 years: 2822 deaths  23485 never smokers: NA  13135 former smokers: NA  4676 current smokers: NA	Measured	Excluded subjects with history of angina, heart attack, diabetes, stroke, cancer in sensitivity analyses (results were unchanged , but not reported)	Excluded first 2 years of follow-up in sensitivity analyses (results were unchanged , but not reported)	BMI, men  BMI, women  BMI, men, all  BMI, women, all	<24.3 24.3-<26.1 26.1-<27.7 27.7-<29.9 $\geq$ 29.9  <22.7 22.7-<24.8 24.8-<27.1 27.1-<30.4 $\geq$ 30.4  <23 23-24.9 25-27.4 27.5-29.9 $\geq$ 30  <23 23-24.9 25-27.4	1.2 (1.0, 1.4) 1.0 1.0 (0.9, 1.2) 1.0 (0.9, 1.2) 1.2 (1.0, 1.4)  1.2 (1.0, 1.5) 1.0 0.9 (0.7, 1.1) 0.9 (0.8, 1.1) 1.1 (0.9, 1.3)  1.3 (1.1-1.6) 1.0 0.9 (0.8-1.1) 1.0 (0.8-1.1) 1.1 (1.0-1.3)  1.2 (1.0-1.5) 1.0 0.8 (0.7-1.0)	Age at attendance, country of birth, physical activity, alcohol intake, education, smoking status, living alone (men only), and family history of heart attack (men only); and stratified by “previous history of heart attack, angina, diabetes, stroke, and cancer

						BMI, men, never smokers	27.5-29.9 ≥30 <23 23-24.9 25-27.4 27.5-29.9 30	0.9 (0.8-1.2) 1.1 (0.9-1.3) 0.9 (0.6-1.3) 1.0 1.1 (0.8-1.4) 0.9 (0.7-1.2) 1.2 (0.9-1.6)		
						BMI, women, never smoker	<23 23-24.9 25-27.4 27.5-29.9 ≥30 <23 23-24.9 25-27.4 27.5-29.9 ≥30 <23 23-24.9 25-27.4 27.5-29.9 ≥30 <23 23-24.9 25-27.4 27.5-29.9 ≥30 <23 23-24.9 25-27.4 27.5-29.9 ≥30	1.1 (0.9-1.4) 1.0 0.8 (0.6-1.1) 1.0 (0.8-1.3) 1.2 (0.9-1.5) 1.3 (1.0-1.7) 1.0 0.9 (0.8-1.2) 1.0 (0.8-1.2) 1.1 (0.9-1.4) 1.3 (0.9-1.9) 1.0 0.8 (0.6-1.2) 0.9 (0.6-1.4) 1.1 (0.7-1.5) 1.8 (1.2-2.6) 1.0 0.7 (0.5-1.0) 1.1 (0.7-1.5) 1.4 (0.9-2.1) 1.0 0.8 (0.5-1.3) 0.7 (0.4-1.2) 0.7 (0.4-1.1)		
						BMI, men, former smokers				
						BMI, women, former smokers				
						BMI, men, current smokers				
						BMI, women, current smokers				
Locher JL et al, 2007, USA	UAB Study of Aging	1999-2001 – 2002-2004, 3 years follow-up	983 men and women, age ≥65 years: 147 deaths	Measured (91% of participants)	No	No	BMI	<18.5 18.2-25.0 25-30 30-35 >35	2.18 (1.02-4.66) 1.00 1.25 (0.83-1.87) 0.83 (0.49-1.42) 0.92 (0.47-1.80)	Age, sex, race, smoking status, comorbidities
Fujino Y et al, 2007, Japan	Japan Collaborative Cohort Study	1988-1990 – 1999-2003, 12.7 years follow-up	110792 men and women, age 40-79 years: 9368/6139 deaths	Self-reported	No	No	BMI, men  BMI, women	<18.5 18.5-24 25-29 ≥30 <18.5 18.5-24	1.46 (1.37-1.56) 1.00 0.92 (0.88-0.99) 1.07 (0.87-1.33) 1.60 (1.48-1.73) 1.00	Age, study area

								25-29 ≥30	1.05 (0.98-1.12) 1.50 (1.29-1.74)	
Gelber RP et al, 2007, USA	Physicians' Health Study	1982-1983 – 1988, 5.7 years follow-up	99253 men, age 40-84 years: 5438 deaths  44276 never smokers: 1659 deaths  42270 former smokers: 2702 deaths  12048 current smokers: 986 deaths	Self-reported	Prevalent myocardial infarction, stroke, cancer, liver disease excluded in sensitivity analyses	First 2 years of follow-up excluded in sensitivity analyses	BMI, all  BMI, never smokers  BMI, former smokers  BMI, current smokers  BMI, without prior disease  BMI, with prior disease  BMI, with prior disease, ever smokers, ≤2 years follow-up	<20 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 ≥30.0 <20 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 ≥30.0 <20 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 ≥30.0 <20 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 ≥30.0 <20 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 ≥30.0 <20 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 ≥30.0 <20 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 ≥30.0 <20 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 ≥30.0	1.68 (1.45-1.93) 1.13 (1.05-1.23) 1.00 1.01 (0.94-1.08) 1.12 (1.01-1.23) 1.35 (1.21-1.52) 1.08 (0.79-1.47) 1.04 (0.90-1.21) 1.00 1.03 (0.91-1.17) 1.14 (0.95-1.36) 1.39 (1.13-1.71) 1.56 (1.25-1.95) 1.17 (1.05-1.31) 1.00 0.96 (0.87-1.06) 1.14 (1.00-1.31) 1.30 (1.11-1.52) 2.42 (1.87-3.13) 1.15 (0.95-1.38) 1.00 1.07 (0.90-1.26) 0.99 (0.77-1.27) 1.43 (1.09-1.87) 1.63 (1.31-2.02) 1.09 (0.98-1.22) 1.00 1.10 (1.00-1.21) 1.20 (1.05-1.37) 1.57 (1.36-1.82) 1.62 (1.33-1.96) 1.15 (1.03-1.29) 1.00 0.89 (0.80-0.99) 0.99 (0.85-1.14) 1.08 (0.90-1.29) 1.68 (1.45-1.95) 1.15 (1.06-1.25) 1.00 0.97 (0.90-1.04) 1.03 (0.92-1.14)	Age, alcohol intake, physical activity

							BMI, without prior disease, never smokers, excluding first 2 years of follow-up	$\geq 30.0$ $<20$ 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 $\geq 30.0$	1.27 (1.13-1.44) 0.88 (0.56-1.40) 0.99 (0.81-1.21) 1.00 1.16 (0.98-1.36) 1.30 (1.03-1.63) 1.47 (1.13-1.93)	
Dolan CM et al, 2007, USA	Study of Osteoporotic Fractures	1989-1991 – 1997, 8 years follow-up	8029 women, age $\geq 65$ years: 945 deaths  4864 never smokers: 457 deaths	Measured	No	No	BMI, all  BMI, never smokers	$\leq 22.38$ $>22.38-24.56$ $>24.56-26.73$ $>26.73-29.82$ $>29.82$ $\leq 22.38$ $>22.38-24.56$ $>24.56-26.73$ $>26.73-29.82$ $>29.82$	1.00 0.80 (0.65-0.96) 0.70 (0.57-0.87) 0.72 (0.58-0.89) 0.89 (0.72-1.10) 1.00 0.94 (0.71-1.24) 0.83 (0.62-1.11) 0.81 (0.60-1.09) 1.20 (0.90-1.60)	Age, smoking status (all), self-reported health, grip strength, nonthiazide diuretic use, femoral neck bone mineral density
Pischon T et al, 2008, Europe	European Prospective Investigation into Cancer and Nutrition	1992-2000 - NA, 9.7 years follow-up	359387 men and women, age 25-70 years: 14273 deaths	Measured	Excluded participants with prevalent cancer, heart disease, or stroke	Analyses were stratified by >5 years or shorter follow-up	BMI, men  BMI, women  BMI, men, never smokers	$<18.5$ 18.5-21.0 21.0-<23.5 23.5-<25 25-<26.5 26.5-<28.0 28.0-<30.0 30.0-<35.0 $\geq 35.0$ $<18.5$ 18.5-21.0 21.0-<23.5 23.5-<25 25-<26.5 26.5-<28.0 28.0-<30.0 30.0-<35.0 $\geq 35.0$ $<18.5$ 18.5-21.0 21.0-<23.5 23.5-<25 25-<26.5 26.5-<28.0 28.0-<30.0 30.0-<35.0 $\geq 35.0$ $<18.5$ 18.5-21.0 21.0-<23.5 23.5-<25 25-<26.5 26.5-<28.0 28.0-<30.0 30.0-<35.0	2.30 (1.84-2.86) 1.39 (1.24-1.57) 1.03 (0.94-1.12) 1.00 0.91 (0.84-0.99) 0.96 (0.88-1.04) 1.08 (1.00-1.17) 1.24 (1.14-1.35) 1.94 (1.71-2.20) 1.71 (1.44-2.01) 1.22 (1.10-1.34) 1.00 (0.92-1.09) 1.00 1.02 (0.92-1.11) 1.07 (0.97-1.18) 1.11 (1.00-1.22) 1.17 (1.07-1.29) 1.65 (1.46-1.85) 1.19 (0.54-2.62) 1.25 (0.93-1.67) 0.97 (0.80-1.07) 1.00 0.89 (0.73-1.07) 1.05 (0.86-1.27) 1.21 (1.01-1.47) 1.48 (1.22-1.79)	Age, smoking status, education, alcohol, activity, height

						BMI, women, never smokers	$\geq 35.0$	2.78 (2.09-3.71)	
							<18.5	1.44 (1.08-1.92)	
							18.5-21.0	1.09 (0.93-1.27)	
							21.0-<23.5	1.00 (0.88-1.13)	
							23.5-<25	1.00	
							25-<26.5	1.00 (0.87-1.15)	
							26.5-<28.0	1.12 (0.98-1.30)	
							28.0-<30.0	1.12 (0.97-1.29)	
							30.0-<35.0	1.25 (1.09-1.43)	
							$\geq 35.0$	1.80 (1.53-2.12)	
						BMI, men, former smokers	<18.5	2.18 (1.39-3.41)	
							18.5-21.0	1.69 (1.34-2.13)	
							21.0-<23.5	1.05 (0.90-1.22)	
							23.5-<25	1.00	
							25-<26.5	0.95 (0.83-1.09)	
							26.5-<28.0	1.01 (0.88-1.15)	
							28.0-<30.0	1.16 (1.01-1.32)	
							30.0-<35.0	1.39 (1.21-1.59)	
							$\geq 35.0$	2.10 (1.71-2.58)	
						BMI, women, former smokers	<18.5	1.47 (0.98-2.20)	
							18.5-21.0	1.01 (0.82-1.25)	
							21.0-<23.5	0.85 (0.72-1.00)	
							23.5-<25	1.00	
							25-<26.5	0.94 (0.79-1.12)	
							26.5-<28.0	0.91 (0.75-1.11)	
							28.0-<30.0	0.94 (0.77-1.14)	
							30.0-<35.0	0.95 (0.79-1.16)	
							$\geq 35.0$	1.49 (1.16-1.91)	
						BMI, men, current smokers	<18.5	2.75 (2.09-3.63)	
							18.5-21.0	1.39 (1.19-1.63)	
							21.0-<23.5	1.03 (0.91-1.17)	
							23.5-<25	1.00	
							25-<26.5	0.86 (0.76-0.98)	
							26.5-<28.0	0.91 (0.80-1.03)	
							28.0-<30.0	0.99 (0.87-1.13)	
							30.0-<35.0	1.11 (0.98-1.26)	
							$\geq 35.0$	1.66 (1.34-2.05)	
						BMI, women, current smokers	<18.5	2.29 (1.79-2.95)	
							18.5-21.0	1.53 (1.29-1.81)	
							21.0-<23.5	1.14 (0.98-1.33)	
							23.5-<25	1.00	
							25-<26.5	1.07 (0.90-1.28)	
							26.5-<28.0	1.21 (1.00-1.46)	

								28.0-<30.0 30.0-<35.0 ≥35.0	1.30 (1.07-1.58) 1.38 (1.14-1.67) 1.60 (1.20-2.13)	
Hozawa A et al, 2008, Japan	NIPPON DATA80	1980 – 1999, 19 years follow-up	8924 men and women, age 30-92 years: 1718 deaths  3712 never smokers: 329 deaths	Measured	Prevalent CVD excluded	First 5 years of follow-up excluded in sensitivity analysis	BMI, all	<18.5 18.5-21 21-23 23-25 25-27 ≥27	1.39 (1.19-1.62) 1.17 (1.03-1.33) 1.07 (0.94-1.22) 1.00 1.06 (0.90-1.26) 1.19 (1.00-1.42)	Age, sex, smoking status and cigarettes per day, alcohol
Luchsinger JA et al, 2008, USA	Northern Manhattan	1992-1994 – 2003, 6.9 years follow-up	1372 men and women, age ≥65 years: 479 deaths	Measured	No	First 2 years excluded in sensitivity analyses, results only partly reported	BMI	<23 23-26.1 26.2-29.4 >29.4	1.5 (1.1-2.9) 1.0 1.2 (0.9-1.6) 1.2 (0.9-1.5)	Age, sex, education, ethnic group, cancer, current smoking status, dementia
Orsini N et al, 2008, Sweden	Cohort of Swedish Men	1997-1998 – 2007, 9.7 years follow-up	37633 men, age 45-79 years: 4086 deaths	Self-reported	Prevalent cancer, cardiovascular disease, diabetes were excluded	No	BMI, high physical activity  BMI, medium physical activity  BMI, low physical activity	<25.0 25.0-29.9 ≥30.0 <25.0 25.0-29.9 ≥30.0 <25.0 25.0-29.9 ≥30.0	1.00 1.08 (0.95-1.22) 1.43 (1.13-1.80) 1.18 (1.04-1.34) 1.08 (0.95-1.22) 1.47 (1.17-1.87) 1.53 (1.36-1.72) 1.32 (1.17-1.48) 1.73 (1.44-2.06)	Age, smoking status, pack-years of smoking, alcohol, education, parental history of CHD and cancer
Kivimaki M et al, 2008, United Kingdom	Whitehall Study	1967-1970 - 2005, 35 years follow-up	18860 men, age 40-69 years: 13498 deaths  7865 healthy never smokers: 4766 deaths	Measured	Prevalent cardiovascular disease, hypertension, heart disease, ischemia, intermittent claudication, dyspnea, bronchitis,	First 5 years of follow-up excluded in sensitivity analyses	BMI, all	<18.5 18.5-18.9 19.0-19.9 20.0-20.9 21.0-21.9 22.0-22.9 23.0-23.9 24.0-24.9 25.0-25.9 26.0-26.9 27.0-27.9 28.0-28.9	1.54 (1.33-1.79) 1.25 (1.03-1.52) 1.13 (1.01-1.26) 1.13 (1.04-1.24) 1.09 (1.01-1.19) 0.95 (0.89-1.03) 1.00 0.98 (0.92-1.05) 1.04 (0.98-1.11) 1.04 (0.98-1.12) 1.12 (1.04-1.21) 1.22 (1.11-1.33)	Age

Pednekar MS et al, 2008, India	Mumbai City	1991-97 – 2003, 5.2 years follow-up	148173 men and women, age $\geq$ 35 years: 13261 deaths  Never smokers or smokeless tobacco users: 3255 deaths	Measured	No	First 2 years of follow-up was excluded in a sensitivity analysis	BMI, men, never user of tobacco  BMI, smokeless tobacco user  BMI, men, smoker  BMI, women, never user of tobacco	<16.0  16.0-<17.0  17.0-<18.5  18.5-<25.0  25.0-<30.0  $\geq$ 30.0  <16.0  16.0-<17.0  17.0-<18.5  18.5-<25.0  25.0-<30.0  $\geq$ 30.0  <16.0  16.0-<17.0  17.0-<18.5  18.5-<25.0  25.0-<30.0  $\geq$ 30.0  <16.0  16.0-<17.0  $\geq$ 30.0	2.68 (2.26-3.19)  1.50 (1.21-1.86)  1.37 (1.16-1.62)  1.10 (0.98-1.23)  1.00  1.34 (1.05-1.71)  2.75 (2.38-3.19)  1.71 (1.44-2.03)  1.53 (1.33-1.77)  1.18 (1.06-1.32)  1.02 (0.86-1.17)  1.17 (0.90-1.51)  3.36 (2.93-3.85)  2.38 (2.04-2.78)  2.02 (1.76-2.31)  1.61 (1.44-1.80)  1.38 (1.20-1.59)  1.56 (1.21-2.01)  2.70 (2.12-3.45)  1.80 (1.29-2.53)  1.37 (1.04-1.80)	Age, education, religion, mother tongue

						BMI, women, smokeless tobacco user	18.5-<25.0 25.0-<30.0 ≥30.0 <16.0 16.0-<17.0 17.0-<18.5 18.5-<25.0 25.0-<30.0 ≥30.0	1.07 (0.90-1.26) 1.00 1.09 (0.84-1.42) 2.22 (1.86-2.64) 1.55 (1.25-1.91) 1.48 (1.23-1.77) 1.20 (1.03-1.40) 1.04 (0.87-1.24) 1.14 (0.89-1.46)		
Pednekar MS et al, 2008, India	Mumbai City	1991-97 – 2003, 5.2 years follow-up	148173 men and women, age ≥35 years: 13261 deaths	Measured	No	First 2 years of follow-up was excluded in a sensitivity analysis	BMI, women  BMI, men  BMI, women, excluding first 2 years of follow-up  BMI, men, excluding first 2 years of follow-up	<16.0 16.0-<17.0 17.0-<18.5 18.5-<25.0 25.0-<30.0 ≥30.0 <16.0 16.0-<17.0 17.0-<18.5 18.5-<25.0 25.0-<30.0 ≥30.0 <16.0 16.0-<17.0 17.0-<18.5 18.5-<25.0 25.0-<30.0 ≥30.0 <16.0 16.0-<17.0 17.0-<18.5 18.5-<25.0 25.0-<30.0 ≥30.0 <16.0 16.0-<17.0 17.0-<18.5 18.5-<25.0 25.0-<30.0 ≥30.0	1.94 (1.75-2.15) 1.38 (1.19-1.60) 1.24 (1.11-1.39) 1.00 0.89 (0.81-0.98) 0.97 (0.83-1.14) 2.24 (2.09-2.39) 1.45 (1.33-1.58) 1.27 (1.19-1.36) 1.00 0.87 (0.82-0.93) 1.05 (0.92-1.21) 1.83 (1.62-2.06) 1.36 (1.15-1.61) 1.15 (1.01-1.31) 1.00 0.89 (0.80-0.99) 0.90 (0.75-1.08) 1.92 (1.77-2.09) 1.38 (1.25-1.53) 1.26 (1.16-1.36) 1.00 0.90 (0.84-0.97) 1.13 (0.97-1.32)	Age, education, religion, mother tongue, tobacco
Matsuo T et al, 2008, Japan	Ibaraki Prefecture	1993-2003, 9.7/9.9 years follow-up	32060 men and 61916 women, age 40-79 years: 3930/3164 deaths	Measured	No	First 3 years of follow-up excluded in main analysis	BMI, men, age 40-59 years  BMI, men, age 60-79 years	<18.5 18.5-20.9 21.0-22.9 23.0-24.9 25.0-26.9 27.0-29.9 ≥30.0 <18.5 18.5-20.9 21.0-22.9	2.05 (1.25-3.35) 1.16 (0.85-1.58) 1.00 1.09 (0.83-1.43) 1.02 (0.76-1.38) 1.08 (0.77-1.52) 1.54 (0.88-2.70) 1.58 (1.39-1.79) 1.17 (1.06-1.29) 1.00	Age, alcohol, smoking status

Zhang X et al, 2008, China	Shanghai Women's Health Study	1996-2000 – 2007, 7.4 years follow-up	74896 women, age 40-70 years: 2389 deaths 26055 women, age 51-70 years: 1187 deaths 19883 healthy, never smoking women without previous CVD, cancer, substantial weight loss, excluding first 3 years of follow-up: 486 deaths	Measured	Participants with previous CVD, cancer, substantial weight loss, and first 3 years of follow-up were excluded in a sensitivity analysis	BMI, baseline, all age 51-70 years  BMI, baseline, healthy never smokers, excl. first 3 years of follow-up	<22.2 22.2-24.3 24.4-26.6 ≥26.7  <22.2 22.2-24.3 24.4-26.6 ≥26.7	1.00 0.84 (0.71-0.99) 1.01 (0.86-1.18) 1.11 (0.95-1.30)  1.00 1.13 (0.85-1.50) 1.40 (1.17-1.84) 1.61 (1.23-2.10)	Age  Age, education, occupation, annual family income, menopausal status, HRT, exercise, alcohol, SFA, vegetables and fruits	

Tsai SP et al, 2008, Taiwan	Taipei Outpatient Service Center	1989-1992 – 2005, 15 years follow-up	23185 men and 12074 women, age $\geq 40$ years: 2095 deaths 24669 non-smokers: 1066 deaths	Measured	No	No	BMI, all BMI, non-smokers (never smokers)	18.5-24.9 25-29.9 $\geq 30$ 18.5-24.9 25-29.9 $\geq 30$	1.00 1.23 (1.1-1.3) 1.78 (1.4-2.3) 1.00 1.36 (1.2-1.5) 2.06 (1.5-2.9)	Age, sex, smoking status
Sauvaget C et al, 2008, India	Trivandrum Oral Cancer Study	1995-2004, 8 years follow-up	75868 men and women, age $\geq 35$ years: 4684 deaths  59024 never smokers: 879/2098 deaths  1301 former smokers: NA  17334 current smokers: 1400 deaths	Measured	Prevalent cancer, tuberculosis, stroke, cardio-vascular disease, asthma were excluded	First 3 years of follow-up excluded in sensitivity analyses	BMI, men  BMI, women  BMI, men, non-smokers (never)  BMI, women, non-smokers (never)  BMI, men, current smokers  BMI, men	<16 16-18.4 18.5-22.9 23.0-24.9 25.0-27.4 $\geq 27.5$ <16 16-18.4 18.5-22.9 23.0-24.9 25.0-27.4 $\geq 27.5$ <16 16-18.4 18.5-22.9 23.0-24.9 25.0-27.4 $\geq 27.5$ <16 16-18.4 18.5-22.9 23.0-24.9 25.0-27.4 $\geq 27.5$ <16 16-18.4 18.5-22.9 23.0-24.9 25.0-27.4 $\geq 27.5$ <16 16-18.4 18.5-22.9 23.0-24.9 25.0-27.4 $\geq 27.5$ <16 16-18.4 18.5-22.9 23.0-24.9 25.0-27.4 $\geq 27.5$ <16 16-18.4 18.5-22.9 23.0-24.9 25.0-27.4 $\geq 27.5$	1.35 (1.15-1.58) 1.19 (1.07-1.31) 1.00 0.92 (0.81-1.05) 0.88 (0.75-1.04) 0.78 (0.59-1.02) 1.29 (1.10-1.51) 1.17 (1.04-1.31) 1.00 0.90 (0.78-1.04) 1.01 (0.87-1.17) 0.87 (0.72-1.04) 1.95 (1.46-2.60) 1.33 (1.11-1.59) 1.00 1.01 (0.83-1.23) 0.82 (0.64-1.05) 0.75 (0.51-1.10) 1.27 (1.07-1.50) 1.15 (1.03-1.29) 1.00 0.90 (0.78-1.04) 1.00 (0.86-1.17) 0.87 (0.72-1.04) 1.17 (0.95-1.44) 1.11 (0.98-1.26) 1.00 0.86 (0.70-1.07) 1.02 (0.79-1.31) 0.96 (0.62-1.47) 1.26 (1.03-1.55) 1.16 (1.03-1.32) 1.00 0.95 (0.81-1.12) 0.85 (0.69-1.05)	Age, education, occupation, smoking status, pack-years, SES, study group, tobacco chewing, alcohol, religion

							BMI, women	$\geq 27.5$ $<16$ 16-18.4 18.5-22.9 23.0-24.9 25.0-27.4 $\geq 27.5$ $<16$ 16-18.4 18.5-22.9 23.0-24.9 25.0-27.4 $\geq 27.5$ $<16$ 16-18.4 18.5-22.9 23.0-24.9 25.0-27.4 $\geq 27.5$ $<16$ 16-18.4 18.5-22.9 23.0-24.9 25.0-27.4 $\geq 27.5$	0.89 (0.65-1.21) 1.20 (0.99-1.47) 1.12 (0.98-1.28) 1.00 0.87 (0.73-1.04) 1.11 (0.93-1.33) 0.93 (0.75-1.15) 1.79 (1.22-2.63) 1.27 (1.01-1.60) 1.00 1.16 (0.92-1.46) 0.80 (0.59-1.09) 0.97 (0.64-1.48) 1.21 (0.98-1.48) 1.11 (0.97-1.28) 1.00 0.87 (0.73-1.04) 1.11 (0.92-1.32) 0.93 (0.75-1.15) 1.12 (0.87-1.44) 1.06 (0.91-1.25) 1.00 0.79 (0.60-1.02) 0.98 (0.72-1.34) 0.92 (0.55-1.54)	
Ringback Weitoft GR et al, 2008, Sweden	Swedish Surveys of Living Conditions (ULF)	1980-1981 – 1988-1989, 12 years follow-up	23580 men and women, age 16-74 years: 2306 deaths	Self-reported	No	Excluding first 3 years of follow-up in sensitivity analyses	BMI, men  BMI, women  BMI, men, excluding first 3 years  BMI, women, excluding first 3 years	$<18.5$ 18.5-24.9 25.0-29.9 $\geq 30.0$ $<18.5$ 18.5-24.9 25.0-29.9 $\geq 30.0$ $<18.5$ 18.5-24.9 25.0-29.9 $\geq 30.0$ $<18.5$ 18.5-24.9 25.0-29.9 $\geq 30.0$	2.4 (1.6-3.6) 1.0 1.0 (0.9-1.1) 1.5 (1.2-1.8) 2.0 (1.5-2.7) 1.0 1.1 (1.0-1.3) 1.4 (1.1-1.7) 2.3 (1.4-3.7) 1.0 1.1 (0.9-1.2) 1.4 (1.1-1.7) 2.0 (1.4-2.8) 1.0 1.1 (0.9-1.3) 1.4 (1.1-1.7)	Age, smoking status, longstanding illness, education

Moore SC et al, 2008, USA	Breast Cancer Detection Demonstration Project	1987-1989 – 1997, 10 years follow-up	50186 women, age 40-93 years: 5201 deaths  25103 never smokers: 2715 deaths  16321 former smokers: 1567 deaths  6203 current smokers: 791 deaths	Measured	Prevalent coronary heart disease, diabetes or cancer excluded in sensitivity analyses	No	BMI, all	15.0-18.4 18.5-20.9 21.0-23.4 23.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 ≥35.0	1.43 (1.19-1.72) 1.07 (0.98-1.17) 1.00 1.10 (1.00-1.20) 1.20 (1.11-1.31) 1.23 (1.11-1.37) 1.60 (1.44-1.77) 1.92 (1.64-2.24) 1.10 (0.74-1.65)	Age, menopausal status, annual household income, education, race/ethnicity, smoking status and cigarettes per day, physical activity
							BMI, any chronic disease history	15.0-18.4 18.5-20.9 21.0-23.4 23.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 ≥35.0	1.21 (1.01-1.45) 1.00 1.29 (1.08-1.54) 1.21 (1.02-1.42) 1.34 (1.09-1.64) 1.58 (1.29-1.92) 1.68 (1.25-2.26)	
							BMI, no chronic disease history	15.0-18.4 18.5-20.9 21.0-23.4 23.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 ≥35.0	1.53 (1.25-1.88) 1.04 (0.94-1.15) 1.00 1.04 (0.94-1.16) 1.19 (1.08-1.31) 1.17 (1.03-1.32) 1.57 (1.38-1.77) 1.93 (1.61-2.33)	
							BMI, never smokers	15.0-18.4 18.5-20.9 21.0-23.4 23.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 ≥35.0	1.32 (0.99-1.75) 1.07 (0.94-1.21) 1.00 1.09 (0.97-1.24) 1.18 (1.05-1.32) 1.28 (1.11-1.47) 1.58 (1.38-1.82) 1.94 (1.58-2.40)	
							BMI, former smokers	15.0-18.4 18.5-20.9 21.0-23.4 23.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 ≥35.0	1.50 (1.07-2.09) 1.05 (0.90-1.23) 1.00 1.13 (0.97-1.32) 1.19 (1.02-1.38) 1.13 (0.92-1.38) 1.70 (1.40-2.06) 1.65 (1.22-2.22)	
							BMI, current smokers	15.0-18.4 18.5-20.9 21.0-23.4	1.72 (1.22-2.43) 1.19 (0.97-1.45) 1.00	

								23.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 ≥35.0	1.11 (0.88-1.40) 1.26 (1.02-1.57) 1.09 (0.80-1.50) 1.33 (0.96-1.82) 2.21 (1.40-3.47)	
Kulminski AM et al, 2008, USA	National Long Term Care Survey	1994-NA, 9 years follow-up	4791 men and women, age ≥65 years: 2956 deaths	Self-reported	No, sensitivity analyses excluding subjects with disability	No	BMI, all  BMI, men  BMI, women  BMI, all  BMI, disabled  BMI, nondisabled	<18.5 18.5-21.9 22.0-24.9 25-29.9 30-34.9 ≥35 <18.5 18.5-21.9 22.0-24.9 25-29.9 30-34.9 ≥35 <18.5 18.5-21.9 22.0-24.9 25-29.9 30-34.9 ≥35 <18.5 18.5-21.9 22.0-24.9 25-29.9 30-34.9 ≥35 <18.5 18.5-21.9 22.0-24.9 25-29.9 30-34.9 ≥35 <18.5 18.5-21.9 22.0-24.9 25-29.9 30-34.9 ≥35	1.86 (1.62-2.14) 1.27 (1.14-1.41) 1.00 0.82 (0.74-0.91) 0.78 (0.68-0.91) 1.05 (0.87-1.26) 2.24 (1.74-2.88) 1.51 (1.26-1.80) 1.00 0.80 (0.68-0.93) 0.85 (0.66-1.08) 1.15 (0.79-1.67) 1.70 (1.44-2.02) 1.15 (1.00-1.31) 1.00 0.84 (0.73-0.95) 0.75 (0.62-0.89) 0.99 (0.80-1.23) 1.96 (1.68-2.29) 1.30 (1.16-1.47) 1.00 0.81 (0.73-0.91) 0.76 (0.65-0.89) 1.08 (0.89-1.32) 1.31 (0.86-2.01) 1.10 (0.85-1.42) 1.00 0.73 (0.58-0.91) 0.67 (0.47-0.94) 1.29 (0.81-2.01) 2.01 (1.70-2.38) 1.38 (1.20-1.58) 1.00 0.85 (0.74-0.96) 0.75 (0.62-0.89) 0.88 (0.71-1.09)	Age, sex  Age, sex, smoking, drinking, heart attack, other heart problems, stroke, cancer, race, change in weight

Korkeila M et al, 2009, Finland	Finnish Twin Cohort	1975-1981 – 2003, 22 years follow-up	15494 men and women, age 24-60 years: 787/376 deaths	Self-reported	Excluded chronic disease that could cause weight loss, No	BMI, women  BMI, men	<18.5 18.5-<22.0 22.0-<23.5 23.5-<25.0 25.0-<27.0 27.0-<30.0 ≥30.0 <18.5 18.5-<22.0 22.0-<23.5 23.5-<25.0 25.0-<27.0 27.0-<30.0 ≥30.0	1.22 (0.76-1.97) 1.00 0.82 (0.60-1.13) 1.04 (0.77-1.40) 0.91 (0.64-1.30) 0.88 (0.59-1.32) 1.07 (0.61-1.88) 0.28 (0.07-1.10) 1.00 0.97 (0.77-1.23) 1.15 (0.90-1.45) 1.14 (0.89-1.46) 1.40 (1.07-1.82) 1.61 (1.08-2.41)	Age	
Reuser M et al, 2009, USA	US Health and Retirement Survey and Asset and Health Dynamics Among the Oldest Old	1992-1993 – 2002, 7.8 years follow-up	16192 men and women, age 51-61 and ≥70 years: 2354 deaths	Self-reported	No	First 3 years of follow-up excluded in main analysis	BMI, men, age 55-80 years  BMI, men, age ≥80 years  BMI, women, age 55-80 years  BMI, women, age ≥80 years	18.5-22.9 23.0-24.9 25.0-29.9 30.0-34.9 ≥35.0 18.5-22.9 23.0-24.9 25.0-29.9 30.0-34.9 ≥35.0 18.5-22.9 23.0-24.9 25.0-29.9 30.0-34.9 ≥35.0 18.5-22.9 23.0-24.9 25.0-29.9 30.0-34.9 ≥35.0 18.5-22.9 23.0-24.9 25.0-29.9 30.0-34.9 ≥35.0	1.42 (1.11-1.81) 1.00 0.96 (0.79-1.18) 1.08 (0.83-1.39) 1.47 (1.02-2.12) 1.10 (0.87-1.39) 1.00 0.86 (0.70-1.06) 0.85 (0.60-1.21) 1.31 (0.67-2.58) 1.01 (0.77-1.34) 1.00 1.03 (0.79-1.34) 1.07 (0.77-1.49) 1.95 (1.36-2.79) 1.01 (0.84-1.34) 1.00 0.80 (0.66-0.98) 0.95 (0.72-1.26) 1.80 (1.23-2.64)	Smoking status, education
Ferrie JE et al, 2009, UK	The General Post Office Study	1966-1967 - 2007, 40 years follow-up	644 women and 1272 men, age 35-70 years: 348/871 deaths	Measured	No	No	BMI, women  BMI, men	<18.5 18.5-24.9 25.0-29.9 ≥30.0 <18.5 18.5-24.9 25.0-29.9 ≥30.0	1.78 (0.91-3.49) 1.00 0.84 (0.66-1.06) 1.53 (1.11-2.12) 1.72 (0.99-2.99) 1.00 0.97 (0.84-1.11) 1.22 (0.92-1.61)	Age

Guallar-Castillon P et al, 2009, Spain	Spanish Elderly	2000-2001 – 2007, 5.7 years follow-up	3536 men and women, age $\geq 60$ years: 659 deaths	Measured	No	No	BMI  BMI, no mobility limitation  BMI, mobility limitation	<25.6/<26.1 <28.0/<29.0 <30.7/<32.4 $\geq 30.7/\geq 32.4$ <25.6/<26.1 <28.0/<29.0 <30.7/<32.4 $\geq 30.7/\geq 32.4$ <25.6/<26.1 <28.0/<29.0 <30.7/<32.4 $\geq 30.7/\geq 32.4$	1.00 0.82 (0.64-1.04) 0.72 (0.58-0.90) 0.85 (0.66-1.08) 1.00 1.04 (0.67-1.61) 1.03 (0.65-1.64) 0.92 (0.53-1.62) 1.00 0.65 (0.47-0.89) 0.47 (0.34-0.65) 0.52 (0.35-0.78)	Age, sex, education, smoking status, alcohol, leisure-time physical activity, chronic obstructive lung disease, cancer, untreated cataracts, depression requiring treatment, dementia, SF-36 mental summary component
Walter S et al, 2009, Netherlands	Rotterdam Study	1990-1993 – 2006, 15 years follow-up	5980 men and women, age : 2388 deaths	Measured	Excluded participant with unintentional weight loss of >3.5 kg in 18 months before baseline	No	BMI, non-disabled  BMI, disabled	18.5-25 25-30 30-35 $\geq 35$ 18.5-25 25-30 30-35 $\geq 35$	1.00 0.96 (0.86-1.07) 1.06 (0.89-1.25) 1.31 (0.86-1.99) 1.00 0.82 (0.70-0.96) 0.73 (0.60-0.90) 1.12 (0.80-1.57)	Age, sex, smoking status, pack-years of cigarettes, alcohol consumption, alcohol in g/d, education, income, living situation
Klenk J et al, 2009, Austria	The Vorarlberg Health Monitoring & Promotion Program	1985-2003 – 2006, 15.1 years follow-up	184697 men and women, mean age 41.7 years: 15557 deaths	Measured	No	First 1-3 years follow-up excluded in sensitivity analyses, but not reported	BMI, men  BMI, women	<18.5 18.5-19.9 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 $\geq 35.0$ <18.5 18.5-19.9 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 $\geq 35.0$	2.57 (2.17-3.05) 1.44 (1.25-1.65) 1.24 (1.15-1.34) 1.00 1.01 (0.95-1.08) 1.13 (1.05-1.21) 1.25 (1.15-1.35) 2.13 (1.82-2.48) 1.40 (1.21-1.62) 1.11 (0.99-1.26) 1.06 (0.98-1.14) 1.00 1.05 (0.98-1.13) 1.10 (1.02-1.19) 1.29 (1.20-1.40) 1.60 (1.42-1.81)	Age, smoking status
Wandell PE et al, 2009, Sweden	Stockholm County Study	1969-1996, 26 years follow-up	1020 men and women, age 18-64 years: 562 deaths	Measured	No	No	BMI, men  BMI, women	<20 20-<25 25-30 $\geq 30$ <20	1.21 (0.49-3.00) 1.00 0.95 (0.64-1.39) 2.76 (1.43-5.33) 0.36 (0.15-0.91)	Age, need of care, heart rate, hypertension, low fasting blood glucose, diabetes, alcohol, smoking status

							20-<25	1.00	
							25-30	0.88 (0.52-1.50)	
							>30	1.59 (0.77-3.30)	
Gulsvik AK et al, 2009, Norway	Bergen Clinical Blood Pressure Study	1965-2007, 42 years follow-up	5653 men and women, age 22-75 years: 4520 deaths	Measured	No	No	BMI, age 20-44 years	<22 22-24.9 25.0-27.9 ≥28.0	0.85 (0.65-1.12) 1.00 1.23 (0.91-1.66) 1.65 (1.09-2.50)
							BMI, age 45-64 years	<22 22-24.9 25.0-27.9 ≥28.0	1.06 (0.87-1.29) 1.00 1.00 (0.84-1.19) 1.29 (1.07-1.56)
							BMI, ≥65 years	<22 22-24.9 25.0-27.9 ≥28.0	1.58 (1.11-2.25) 1.00 0.86 (0.64-1.16) 1.10 (0.83-1.46)
Stessman J et al, 2009, Israel	Jersualem Longitudinal Study	1990, 1998, 2005 – 2008, 18/10/3 years follow-up	447/870/1086 men and women, age 70, 78, and 85 years: NA	NA	No	Yes, excluding the first 1, 3.5 and 6 years of follow-up	BMI, women, 1990-2008	<25 25-29.9 ≥30	1.00 0.55 (0.33-0.92) 0.45 (0.25-0.83)
							BMI, women, 1996-2008	<25 25-29.9 ≥30	1.00 0.55 (0.31-0.97) 0.39 (0.20-0.79)
							BMI, women, 1998-2008	<25 25-29.9 ≥30	1.00 0.66 (0.41-1.05) 0.41 (0.25-0.68)
							BMI, women, 2001-2008	<25 25-29.9 ≥30	1.00 0.45 (0.26-0.76) 0.28 (0.16-0.49)
							BMI, women, 2005-2008	<25 25-29.9 ≥30	1.00 0.30 (0.15-0.62) 0.38 (0.19-0.78)
							BMI, women, 2006-2008	<25 25-29.9 ≥30	1.00 0.22 (0.09-0.51) 0.18 (0.07-0.47)
							BMI, men, 1990-2008	<25 25-29.9 ≥30	1.00 0.93 (0.63-1.70) 1.03 (0.59-1.79)
							BMI, men, 1996-2008	<25 25-29.9 ≥30	1.00 0.88 (0.55-1.40) 1.17 (0.61-2.26)
							BMI, men, 1998-2008	<25 25-29.9 ≥30	1.00 0.77 (0.54-1.09) 0.78 (0.48-1.28)
							BMI, men, 2001-2008	<25	1.00

							BMI, men, 2005-2008	25-29.9 ≥30 <25 25-29.9 ≥30 <25 25-29.9 ≥30	0.94 (0.61-1.46) 0.53 (0.27-1.07) 1.00 1.06 (0.52-2.10) 0.36 (0.10-1.30) 1.00 1.04 (0.47-2.30) 0.28 (0.06-1.33)	
Cesari M et al, 2009, Italy	The InCHIANTI Study	1998-2000 – 2006, 5.1 years follow-up	934 men and women, age ≥65 years: 263 deaths	NA	No	No	BMI, no sarcopenia  BMI, sarcopenia	<25 25-29.9 ≥30 <25 25-29.9 ≥30	1.00 1.17 (0.65-2.09) 0.99 (0.53-1.84) 1.25 (0.69-2.25) 1.24 (0.65-2.37) 1.18 (0.46-3.02)	Age, sex, site, education, mini-mental state examination score, center for epidemiological studies depression scale score, physical activity, CHF, CAD, hypertension, PAD, respiratory disease, osteoarthritis, stroke, IL-6, CRP, TNF-alpha
Neovius M et al, 2009, Sweden	Swedish Military Conscripts	1969-1970 – 2007, 38 years follow-up	45920 men, mean age 18.7 years: 2878 deaths	Measured	No	No	BMI, all  BMI, non-smokers  BMI, smokers  BMI, 1-10 cig/d  BMI, >10 cig/d	<18.5 18.5-24.9 25.0-29.9 ≥30.0 <18.5 18.5-24.9 25.0-29.9 ≥30.0 <18.5 18.5-24.9 25.0-29.9 ≥30.0 <18.5 18.5-24.9 25.0-29.9 ≥30.0 <18.5 18.5-24.9 25.0-29.9 ≥30.0	0.97 (0.86-1.08) 1.00 1.33 (1.15-1.53) 2.14 (1.61-2.85) 0.94 (0.75-1.18) 1.00 1.37 (1.05-1.79) 2.16 (1.24-3.76) 0.97 (0.85-1.11) 1.00 1.35 (1.14-1.60) 2.23 (1.60-3.12) 0.91 (0.75-1.10) 1.00 1.44 (1.11-1.86) 1.83 (0.98-3.42) 1.05 (0.88-1.25) 1.00 1.23 (0.98-1.54) 2.27 (1.53-3.38)	Age, muscular strength, SES, smoking status, cigarettes per day
Orpana HM et al, 2010, Canada	National Population Health Survey	1994-1995 - 2005, 12 years follow-up	11326 men and women, age ≥25 years: 1929 deaths	Self-reported	No	First 4 years excluded in sensitivity analyses (Results were	BMI, all	<18.5 18.5-<25.0 25.0-<30.0 30.0-<35.0 ≥35.0	1.73 (1.25-2.39) 1.00 0.83 (0.72-0.96) 0.95 (0.77-1.18) 1.36 (1.00-1.85)	Age, sex, smoking status, physical activity, alcohol

		4213 never smokers: 37 deaths			similar, but not reported)	BMI, corrected	<18.5 18.5-<25.0 25.0-<30.0 30.0-<35.0 ≥35.0	1.51 (0.99-2.30) 1.00 0.75 (0.65-0.86) 0.84 (0.67-1.05) 1.09 (0.86-1.39)	
						BMI, age 25-59 years	<18.5 18.5-<25.0 25.0-<30.0 30.0-<35.0 ≥35.0	0.87 (0.20-3.85) 1.00 0.91 (0.66-1.25) 0.89 (0.49-1.60) 1.53 (0.91-2.58)	
						BMI, age ≥60 years	<18.5 18.5-<25.0 25.0-<30.0 30.0-<35.0 ≥35.0	1.88 (1.32-2.68) 1.00 0.81 (0.68-0.97) 0.96 (0.76-1.21) 1.25 (0.83-1.90)	
						BMI, men	<18.5 18.5-<25.0 25.0-<30.0 30.0-<35.0 ≥35.0	2.54 (1.47-4.37) 1.00 0.86 (0.71-1.03) 1.10 (0.81-1.49) 1.72 (1.13-2.63)	
						BMI, women	<18.5 18.5-<25.0 25.0-<30.0 30.0-<35.0 ≥35.0	1.50 (1.01-2.22) 1.00 0.77 (0.63-0.95) 0.81 (0.62-1.08) 1.09 (0.69-1.74)	
						BMI, ever smokers	<18.5 18.5-<25.0 25.0-<30.0 30.0-<35.0 ≥35.0	1.69 (1.10-2.60) 1.00 0.82 (0.69-0.96) 0.94 (0.73-1.21) 1.21 (0.85-1.74)	
						BMI, never smokers	<18.5 18.5-<25.0 25.0-<30.0 30.0-<35.0 ≥35.0	2.05 (1.32-3.18) 1.00 0.76 (0.58-0.99) 0.83 (0.55-1.26) 1.68 (0.93-3.05)	
						BMI	<18.5 18.5-<20.0 20.0-<22.5 22.5-<25.0 25.0-<27.5 27.5-<30.0 30.0-<32.5 32.5-<35.0	1.89 (1.36-2.64) 1.23 (0.86-1.76) 1.18 (0.98-1.44) 1.00 0.93 (0.77-1.12) 0.87 (0.69-1.10) 1.08 (0.80-1.45) 0.92 (0.67-1.26)	

								$\geq 35.0$	1.48 (1.06-2.06)	
Iversen L et al, 2010, United Kingdom	Royal College of General Practitioners' Oral Contraceptive Study	1994-1995 – 2006, 11.8 years follow-up	10073 women, mean age 56.1 years: 896 deaths	Self-reported	No	No	BMI	<18.50 18.50-24.99 25.00-29.99 $\geq$ 30.00	1.66 (1.03-2.68) 1.00 0.98 (0.84-1.14) 1.03 (0.85-1.24)	Age, social class, parity, history of serious illness (IHD, hypertension, stroke, venous thromboembolism, malignancy, diabetes, asthma, bronchitis), pack-years, alcohol, physical activity
Pierce BL et al, 2010, Bangladesh	Health Effects of Arsenic Longitudinal Study (HEALS)	2000-2002 – 2009, 6.4 years follow-up	11445 men and women, age 18-75 years: 393 deaths	Measured	No	First 2 years excluded in sensitivity analysis (risk estimates not reported, only shown in figure)	BMI, men  BMI, women	<16.0 16.0-16.9 17.0-18.4 18.5-22.9 $\geq$ 23.0  <16.0 16.0-16.9 17.0-18.4 18.5-22.9 $\geq$ 23.0	2.31 (1.34-3.25) 1.62 (1.13-2.33) 1.14 (0.82-1.57) 1.00 1.49 (1.00-2.23)  1.58 (0.92-2.69) 0.89 (0.45-1.77) 0.84 (0.49-1.40) 1.00 0.54 (0.27-1.12)	Age, sex, smoking status, education, BMI-related symptoms experienced in the 6 months prior to baseline (weight loss and weakness)
Arnlov J et al, 2010, Sweden	Uppsala Longitudinal Study of Adult Men (ULSAM)	1970-1973 –NA, 30 years follow-up	1758 men, age $\geq$ 50 years: 788 deaths	NA	CVD hospitalization, diabetes	No	BMI	<25, no metsyn <25, metsyn 25-29.9, no metsyn 25-29.9, metsyn $\geq$ 30, no metsyn $\geq$ 30, metsyn	1.00 1.28 (0.90-1.82) 1.21 (1.03-1.40)  1.53 (1.19-1.96) 1.65 (1.03-2.66) 2.43 (1.81-3.27)	Age, smoking status, LDL cholesterol
Odegaard AO et al, 2010, Singapore	Singapore Chinese Health Study	1993-1998 – 2008, 12.4 years follow-up	51251 men and women, age 45-74 years: 8356 deaths  9777 current smokers: 2762 deaths  5708 former smokers: 1423 deaths  35766 never smokers: 4171 deaths	Self-reported	Prevalent cardiovascular disease, diabetes, respiratory disease excluded in sensitivity analyses	First 5 years of follow-up excluded in sensitivity analyses	BMI, current smokers including prevalent disease  BMI, former smokers including prevalent disease  BMI, never smokers, including prevalent disease	<18.5 18.5-19.9 20.0-21.4 21.5-22.9 23.0-24.4 24.5-25.9 26.0-27.4  $\geq$ 27.5  <18.5 18.5-19.9 20.0-21.4 21.5-22.9 23.0-24.4 24.5-25.9 26.0-27.4  $\geq$ 27.5  <18.5 18.5-19.9	1.18 (0.97-1.43) 1.14 (0.94-1.38) 1.03 (0.86-1.25) 0.99 (0.82-1.20) 1.00 (0.83-1.21) 1.09 (0.89-1.33) 1.00  1.25 (1.01-1.55)  1.48 (1.20-1.82) 1.25 (1.02-1.55) 1.12 (0.93-1.36) 1.04 (0.86-1.26) 1.00  1.17 (0.96-1.43) 1.27 (1.02-1.59) 1.36 (1.11-1.68)  1.19 (1.03-1.39) 1.00	Age, sex, year of enrollment, dialect, education, dietary pattern score, physical activity, intensity and duration of smoking among smokers, and durations since quit in former smokers



						BMI, never smokers, excluding prevalent disease, excluding first 5 years of follow-up	24.5-25.9 26.0-27.4 $\geq$ 27.5 $<$ 18.5 18.5-19.9 20.0-21.4 21.5-22.9 23.0-24.4 24.5-25.9 26.0-27.4 $\geq$ 27.5	1.16 (0.85-1.57) 1.43 (1.01-2.01) 1.56 (1.14-2.13) 1.32 (1.07-1.62) 1.00 1.06 (0.88-1.26) 1.15 (0.96-1.36) 1.07 (0.89-1.27) 1.09 (0.91-1.31) 1.25 (1.02-1.53) 1.40 (1.16-1.68)		
Vapattanawong P et al, 2010, Thailand	National Health Examination Survey 111	2004-2007, 3.8 years follow-up	15997 men and women, age $\geq$ 15 years: 1575 deaths	Measured	No	BMI, men  BMI, women	<18.5 18.5-22.9 23.0-24.9 25.0-27.5 27.5-29.9 30.0-34.9 $\geq$ 35.0 $<$ 18.5 18.5-22.9 23.0-24.9 25.0-27.5 27.5-29.9 30.0-34.9 $\geq$ 35.0	1.71 (1.37-2.11) 1.00 0.78 (0.61-0.99) 0.79 (0.61-1.03) 0.63 (0.43-0.94) 0.61 (0.34-1.09) 2.02 (0.74-5.52) 1.33 (1.06-1.67) 1.00 0.71 (0.55-0.91) 0.80 (0.62-1.02) 0.58 (0.41-0.82) 0.60 (0.40-0.90) 0.71 (0.22-1.51)	Age, marital status, urban/rural status, education, living arrangement, diabetes, hypertension, smoking status, physical activity	
Bellocco R et al, 2010, Sweden	Swedish National March Cohort Study	1997 – 2007, 10 years follow-up	14585 men and 26144 women, age 20-94 years: 1054/757 deaths	Self-reported	Cancer, cardio-vascular disease	First 2 years of follow-up excluded in sensitivity analyses (partly reported for men)	BMI, men  BMI, women	<25 25-29.9 $\geq$ 30 $<$ 25 25-29.9 $\geq$ 30	1.00 1.12 (0.97-1.30) 1.62 (1.21-2.17) 1.00 1.02 (0.85-1.22) 1.35 (1.02-1.78)	Age, physical activity, cigarette smoking status, alcohol, use of vitamins and minerals, education (men), OC use and HRT (women)
Lantz PM et al, 2010, USA	Americans' Changing Lives study	1986-2005, 19 years follow-up	3617 men and women, age $\geq$ 25 years: 1409 deaths	Self-reported	No	BMI, age <55 years  BMI, age $\geq$ 55 years	<18.5 18.5-24.9 25.0-29.9 $\geq$ 30.0 $<$ 18.5 18.5-24.9 25.0-29.9 $\geq$ 30.0	2.33 (0.60-9.04) 1.00 1.15 (0.71-1.84) 1.50 (0.89-2.54) 2.21 (1.68-2.89) 1.00 0.81 (0.69-0.96) 0.73 (0.59-0.90)	Age, sex, race, residence, education, inflation-adjusted income, smoking status, alcohol, physical activity	

Vessey M et al, 2010, UK	The Oxford-Family Planning Association Contraceptive Study	1968-1974 – 2009, ~35.4 years follow-up	17032 women, age 25-39 years: 1715 deaths	Self-reported	No exclusions reported	No exclusions reported	BMI	<20 20-21 22-23 24-25 26-27 ≥28	1.00 0.86 (0.74-1.01) 0.96 (0.83-1.13) 1.00 (0.84-1.20) 1.18 (0.95-1.46) 1.33 (1.07-1.64)	Age, parity, social class, smoking status and cigarettes per day, OC use, total OC use months, interval since last OC use
Berraho M et al, 2010, France	PAQUID Cohort Study	NA-NA, 13 years follow-up	3646 men and women, age ≥65 years: 1973 deaths	Self-reported	No	No	BMI	<18.5 18.5-21.9 22.0-24.9 25.0-29.9 ≥30.0 <18.5 18.5-21.9 22.0-24.9 25.0-29.9 ≥30.0 <18.5 18.5-21.9 22.0-24.9 25.0-29.9 ≥30.0	1.45 (1.17-1.78) 1.27 (1.12-1.43) 1.00 0.98 (0.88-1.10) 1.06 (0.89-1.27) 1.43 (1.15-1.77) 1.30 (1.14-1.49) 1.00 0.95 (0.84-1.08) 1.06 (0.87-1.28) 0.88 (0.32-2.42) 0.95 (0.67-1.35) 1.00 1.12 (0.86-1.46) 0.87 (0.51-1.48)	Age, physical activity, smoking status, comorbidity (diabetes, dyspnea, hypertension, ischemic heart disease antecedent, stroke antecedent, number of medications used)
Atlantis E et al, 2010, Australia	The Melbourne Longitudinal Studies on Healthy Aging (MELSHA)	1994-2006, 12 years follow-up	1000 men and women, age ≥65 years: 509 deaths	Measured	No exclusions	No exclusions	BMI	<18.5 18.5-24.9 25.0-29.9 ≥30.0	2.15 (1.15-4.02) 1.00 0.96 (0.77-1.20) 1.04 (0.76-1.42)	Age, sex, smoking status, activities of daily living, timed get up and go, social activity, cognitive impairment, CVD
Nagai M et al, 2010, Japan	The Ohsaki Cohort Study	1994-2006, 12 years follow-up	43972 men and women, age 40-79 years: 5707 deaths	Self-reported	Prevalent cancer, myocardial infarction, stroke excluded	First 2 years of follow-up excluded in sensitivity analyses	BMI, men	<18.5 18.5-20.9 21.0-22.9 23.0-24.9 25.0-27.4 27.5-29.9 ≥30.0 <18.5 18.5-20.9 21.0-22.9 23.0-24.9 25.0-27.4 27.5-29.9 ≥30.0 <18.5 18.5-20.9 21.0-22.9 23.0-24.9 25.0-27.4 27.5-29.9 ≥30.0 <18.5 18.5-20.9 21.0-22.9	1.42 (1.23-1.65) 1.10 (0.99-1.22) 1.04 (0.95-1.14) 1.00 1.01 (0.90-1.13) 1.10 (0.92-1.31) 1.44 (1.11-1.87) 1.35 (1.15-1.59) 1.06 (0.95-1.19) 1.01 (0.92-1.12) 1.00 0.99 (0.88-1.12) 1.05 (0.87-1.26) 1.42 (1.07-1.88) 1.49 (1.24-1.80) 1.15 (0.99-1.33) 0.99 (0.87-1.14)	Age, weight change since age 20 years, education, marital status, cigarette smoking status and cigarettes per day, alcohol, time spent walking, sports and physical exercise, history of kidney disease, history of liver disease  Models with exclusion of first 2 year were also adjusted for hypertension and diabetes

							BMI, excluded first 2 years	23.0-24.9 25.0-27.4 27.5-29.9 $\geq$ 30.0 $<$ 18.5 18.5-20.9 21.0-22.9 23.0-24.9 25.0-27.4 27.5-29.9 $\geq$ 30.0	1.00 1.03 (0.89-1.19) 1.07 (0.89-1.30) 1.33 (1.05-1.69) 1.78 (1.13-2.81) 1.36 (1.00-1.86) 1.21 (0.92-1.59) 1.00 1.02 (0.76-1.36) 0.99 (0.68-1.45) 1.32 (0.82-2.15)	
Byun W et al, 2010, USA	Aerobics Center Longitudinal Study	1974-2002 – 2003, 16.1 years follow-up	38110 men, age 20-84 years: 2642 deaths	Measured	Prevalent cardio-vascular disease or cancer excluded	No	BMI	18.5-24.9 25.0-29.9 $\geq$ 30.0	1.00 0.97 (0.89-1.05) 1.31 (1.16-1.48)	Age, examination year, hypertension, diabetes, hypercholesterolemia, smoking status, alcohol, physical activity, cardiorespiratory fitness
Hart CL et al, 2011, United Kingdom	Renfrew and Paisley Study	1972-1976 - NA, 22.7 years follow-up	3613 never smoking women, age 45-64 years: 1796 deaths	Measured	No	No	BMI	18.5-24.9 25.0-29.9 30.0-34.9 $\geq$ 35.0	1.00 1.10 (0.99-1.23) 1.35 (1.17-1.56) 2.01 (1.67-2.42)	Age, occupational class
Carlsson S et al, 2011, Sweden	Swedish Twin Registry	1969-1970, 1972 – 2004, 25.7 years follow-up	44258 men and women, age 16-86 years: 14217 deaths	Self-reported	No	First 2 years of follow-up excluded	BMI, men  BMI, women	<18.5 18.5-<25 25-<29.9 $\geq$ 30 $<$ 18.5 18.5-<25 25-<29.9 $\geq$ 30	1.18 (0.93-1.50) 1.00 1.22 (1.15-1.30) 1.64 (1.42-1.88) 1.24 (1.07-1.43) 1.00 1.30 (1.23-1.38) 1.66 (1.49-1.84)	Age, smoking status
Klijns B et al, 2011, Netherlands	Dutch Permanent Survey of the Living Situation (POLIS)	1997-1999 – 2006, ~8 years follow-up	6217 men and women, age $\geq$ 55 years: 1614 deaths	Self-reported	No	No	BMI	18.5-24.9 25.0-29.9 $\geq$ 30.0	1.00 0.97 (0.87-1.07) 1.15 (0.98-1.36)	Age, sex, marital status
Hwang LC et al, 2011, Taiwan	Six-Community Hypertension Intervention Project	1982-1983 – 2006, 24 years follow-up	6603 men and women, age 20-65 years: 1896 deaths	Measured	No	No	BMI  BMI, men	<23 23-24.9 25-26.9 $\geq$ 27 $<$ 23 23-24.9 25-26.9 $\geq$ 27	1.00 1.06 (0.94-1.19) 1.28 (1.12-1.47) 1.46 (1.27-1.68) 1.00 1.05 (0.90-1.23) 1.20 (1.09-1.32) 1.49 (1.20-1.85)	Age, sex, alcohol, smoking status, education, exercise

						BMI, women	<23 23-24.9 25-26.9 ≥27	1.00 1.08 (0.89-1.32) 1.42 (1.14-1.76) 1.43 (1.18-1.74)		
Lin WY et al, 2011, China	National Health Screening Centres in Taiwan	1998-1999 - 2008, 10 years follow-up	58738 men and 65718 women, age 20 years: 3947 deaths	Measured	No	Three first years of follow-up excluded in sensitivity analyses	BMI, men	<18.5 18.5-19.9 20.0-21.9 22.0-23.9 24.0-25.9 26.0-27.9 28.0-29.9 30.0-34.9 ≥35.0	1.65 (1.34-2.04) 1.32 (1.09-1.60) 1.15 (0.99-1.33) 1.14 (0.99-1.30) 1.00 1.01 (0.86-1.18) 1.12 (0.91-1.38) 1.27 (0.95-1.70) 2.37 (1.22-4.60)	Age, smoking status, alcohol, betel-nut chewing, physical activity, income level, education
Boggs DA et al, 2011, USA	Black Women's Cohort Study	1995-2008, ~12.4 years	51695 black women, age 21-69 years:	Self-reported	Cardio-vascular disease,	First 6 years excluded in sensitivity	BMI, never smokers	15.0-18.4 18.5-19.9 20.0-22.4	1.89 (1.03-3.44) 1.36 (0.87-2.14) 1.02 (0.76-1.39)	Age, questionnaire cycle, educational level, marital status, vigorous physical



								30.0-34.9 ≥35.0	0.98 (0.88-1.08) 1.21 (1.06-1.39)	
Puddu PE et al, 2011, Europe	Seven Countries Study	1960-2000, 25-40 years follow-up	6554 men, age 40-59 years: 5590 deaths	Measured	No	No	BMI	<18.5 18.5-24.9 25.0-29.9 ≥30.0	1.00 0.88 (0.73-1.08) 1.02 (0.83-1.26) 1.16 (0.92-1.48)	Age, location, father status, mother status, SES, physical activity, cigarettes per day, arm circumference, mean blood pressure, heart rate, serum cholesterol, FEV1, ECG abnormalities
Cohen-Mansfield J et al, 2011, Israel	Cross-Sectional and Longitudinal Aging Study (CALAS)	1989-1992 - NA, 20 years follow-up	1369 men and women, age 75-94 years: 1310 deaths	Measured	No	No	BMI	<22 22-30 ≥30	1.41 (1.20-1.67) 1.00 1.12 (0.93-1.34)	Age, sex, origin, education, additional income, had children
Niedhammer I et al, 2011, France	Lorhandicap Study	1996-2008, 12.5 years follow-up	4118 men and women, age 15-<70 years: 165 deaths	NA	No	No	BMI, all  BMI, men  BMI, women	<25 25-30 ≥30 <25 25-30 ≥30 <25 25-30 ≥30	1.00 0.91 (0.63-1.31) 0.91 (0.60-1.40) 1.00 0.92 (0.60-1.40) 0.86 (0.50-1.47) 1.00 0.86 (0.41-1.80) 0.99 (0.49-2.02)	Age, sex, SES, smoking status, alcohol, biomechanical exposure, physical exposure, temporary contract, social support
Hotchkiss JW et al, 2011, Scotland	Scottish Health Surveys	1995, 1998, 2003 – 2007, ~9.2 years follow-up	20117 (BMI) men and women, age 18-86 years: 1280 deaths  8204 never smokers: 214 deaths  7995 never smokers, excluding first 2 years: 185 deaths	Measured	Prevalent cancers and CVD excluded in sensitivity analyses	First 2 years excluded in sensitivity analyses	BMI, all  BMI, excluding prevalent cancer and CVD  BMI, excluding prevalent cancer and CVD and ever smokers  BMI, excluding prevalent cancer and CVD, ever smokers and first 2 years of follow-up	<18.5 18.5-25 25.0-30 ≥30.0 <18.5 18.5-25 25.0-30 ≥30.0 <18.5 18.5-25 25.0-30 ≥30.0 <18.5 18.5-25 25.0-30 ≥30.0	1.63 (1.95-3.55) 1.00 0.80 (0.70-0.91) 0.93 (0.80-1.07) 2.54 (1.82-3.55) 1.00 0.75 (0.65-0.87) 0.87 (0.74-1.03) 2.71 (0.84-8.70) 1.00 0.68 (0.49-0.95) 0.94 (0.67-1.32) 4.52 (1.06-19.18) 1.00 1.02 (0.66-1.59) 1.09 (0.67-1.78)	Age, sex, smoking status, alcohol, survey year
Mehta NK et al, 2011, USA	Framingham Heart Study Offspring Cohort	1985-1992 – 2003, 14.8 years follow-up	2744 men and women, mean age 55.4 years: 470	Measured	No	No	BMI	<18.5 18.5-24.9 25.0-29.9 30.0-34.9	2.77 (1.28-6.00) 1.00 0.87 (0.70-1.09) 0.98 (0.74-1.29)	Sex, cigarette smoking status and packs per day, education

			deaths					$\geq 35.0$	1.85 (1.27-2.69)	
Heir T et al, 2011, Norway	Norwegian White and Blue collar workers	1972-1975 - 1999, 25-27 years follow-up	2014 healthy men, age 40-59 years: 746 deaths	NA	Coronary or other heart diseases, advanced pulmonary diseases, diabetes mellitus, hypertension treated with drugs, advanced renal disease, liver disease, cancer and miscellaneous other diseases including neurological, muscular or joint diseases	First 5 years excluded in sensitivity analyses (results not altered, but not reported)	BMI, non-smokers (former and never), CVD mortality  BMI, non-smokers, non-CVD mortality  BMI, smokers, CVD mortality  BMI, non-smokers, non-CVD mortality	<25  25-29.9  $\geq 30$  $<25$  25-29.9  $\geq 30$  $<25$  25-29.9  $\geq 30$	1.00  1.63 (1.19-2.23)  3.67 (2.02-6.64)  1.00  0.89 (0.64-1.24)  2.28 (1.18-4.39)  1.00  1.10 (0.82-1.48)  2.06 (1.14-3.73)  1.00  0.85 (0.63-1.16)  0.94 (0.42-2.16)	Age
Tsai AC et al, 2011, Taiwan	Survey of Health and Living Status of the Elderly in Taiwan	1999-2003, 4 years follow-up	4191 men and women, age $\geq 53$ years: 566 deaths	Self-reported	No	No	BMI, age 53-64 years  BMI, age 65-74 years  BMI, age $\geq 75$ years	<21  21-27  $\geq 27$  $<21$  21-27  $\geq 27$  $<21$  21-27  $\geq 27$	2.79 (1.58-4.95)  1.00  1.45 (0.70-2.98)  1.54 (1.12-2.13)  1.00  0.58 (0.31-1.08)  1.38 (1.10-1.74)  1.00  0.78 (0.50-1.21)	Age, sex, exercise, smoking status
Tognon G et al, 2011, Sweden	Gerontological and Geriatric Population Studies in	1971-2000 – 2009, ~23 years follow-up	1037 men and women, age 70 years: 630 deaths	NA			BMI	<20  20-<30  $>30$	1.32 (0.90-1.96)  1.00  0.94 (0.72-1.24)	Male gender, waist circumference, low physical activity, marital status, smoking status, education,

	Gothenburg									birth cohort
Bessonova L et al, 2011, USA	California Teachers Study	1995-1996 – 2007, ~11.5 years follow-up	115433 women, mean age 53.1 years: 10574 deaths 75582 never smokers: 5962 deaths	Self-reported	No	First year of follow-up excluded	BMI, all  BMI, never smokers  BMI, ever smokers	<18.5 18.5-24.9 25-29.9 ≥30 <18.5 18.5-24.9 25-29.9 ≥30 <18.5 18.5-24.9 25-29.9 ≥30	1.33 (1.20-1.47) 1.00 1.04 (0.98-1.10) 1.27 (1.19-1.37) 1.35 (1.18-1.55) 1.00 1.07 (1.00-1.15) 1.34 (1.22-1.47) 1.39 (1.19-1.63) 1.00 1.00 (0.92-1.09) 1.17 (1.05-1.31)	Age, race/ ethnicity, HRT, physical activity, diabetes, hypertension, heart attack, stroke, any cancer, alcohol, smoking status, fat, weight change from age 18 to baseline
Strand BH et al, 2012, United Kingdom	The British 1946 birth cohort	1972 – 2006, 40 years follow-up	1471 men and 1476 women, age 20 years: 332 deaths	Self-reported	No	No	BMI (age 20), men  BMI (age 20), women	17.7 20.1 22.6 25.1 27.6 16.1 18.9 21.8 24.8 28.0	7.00 (1.94-25.2) 1.00 (0.43-2.31) 1.00 1.11 (0.45-2.70) 1.00 (0.37-2.71) 0.43 (0.06-3.22) 0.55 (0.21-1.43) 1.00 0.56 (0.23-1.37) 1.01 (0.37-2.79)	Father's occupation, education, smoking status
Pan WH et al, 2012, Taiwan	MJ Health Examination Cohort	1994-1996 – 2007, 11.7 years follow-up	111949 men and women, age ≥20 years: 5345 deaths	Measured	No	First 5 years of follow-up excluded in the main analysis	BMI, men, age 20-39 years  BMI, men, age 40-59 years  BMI, men age ≥60 years  BMI, women, age 20-39 years  BMI, women, age 40-59 years	<18.5 18.5-23.9 24.0-26.9 ≥27.0 <18.5 18.5-23.9 24.0-26.9 ≥27.0 <18.5 18.5-23.9 24.0-26.9 ≥27.0 <18.5 18.5-23.9 24.0-26.9 ≥27.0 <18.5 18.5-23.9 24.0-26.9 ≥27.0	1.00 0.77 (0.45-1.32) 0.86 (0.49-1.51) 1.18 (0.66-2.11) 1.00 0.73 (0.49-1.10) 0.76 (0.51-1.15) 0.91 (0.60-1.38) 1.00 0.81 (0.67-0.97) 0.78 (0.64-0.94) 0.83 (0.67-1.02) 1.00 0.76 (0.47-1.23) 1.32 (0.74-2.36) 1.44 (0.73-2.83) 1.00 0.65 (0.40-1.06) 0.77 (0.47-1.26) 0.96 (0.59-1.59)	Age, age squared, smoking status

							BMI, women age $\geq$ 60 years	<18.5 18.5-23.9 24.0-26.9 $\geq$ 27.0	1.00 0.58 (0.44-0.75) 0.54 (0.41-0.71) 0.64 (0.49-0.85)	
Beleigoli AM et al, 2012, Brazil	Bambui Cohort Study of Ageing	1997-2007, 8.9 years follow-up	1450 men and women, age $\geq$ 60 years: 521 deaths	Measured	No	No	BMI	<18.5 18.5-24.9 25.0-29.9 $\geq$ 30.0	1.54 (1.02-1.89) 1.00 0.76 (0.61-0.93) 0.85 (0.64-1.14)	Age, sex, Chagas disease, current smoking, serum B-type natriuretic peptide, major ECG abnormalities, SBP, total cholesterol, diabetes, serum creatinine, physical activity, education, monthly household income, anti-hypertensive medication
Zunzunegui MV et al, 2012, Spain	The Aging in Leganes cohort	1993-2009, 16 years follow-up	1008 men and women, age $\geq$ 65 years: 672 deaths	Self-reported weight, measured height	No	First year of follow-up excluded	BMI, spline  BMI, all  BMI, men  BMI, women	15.0 17.5 20.0 22.5 25.0 27.5 30.0 32.5 35.0 37.5 40.0 42.5 45.0 $<$ 18.5 18.5-24.9 25.0-29.9 30.0-34.9 $\geq$ 35.0 $<$ 18.5 18.5-24.9 25.0-29.9 30.0-34.9 $\geq$ 35.0 $<$ 18.5 18.5-24.9 25.0-29.9 30.0-34.9 $\geq$ 35.0	1.79 (1.17-2.71) 1.56 (1.12-2.17) 1.37 (1.07-1.75) 1.22 (1.03-1.44) 1.11 (0.99-1.23) 1.03 (0.98-1.09) 1.00 (0.99-1.01) 1.01 (0.97-1.06) 1.08 (0.96-1.21) 1.21 (0.96-1.52) 1.45 (1.00-2.12) 1.87 (1.05-3.33) 2.61 (1.13-6.01) 2.84 (1.58-5.11) 1.15 (0.90-1.46) 1.04 (0.83-1.31) 1.00 1.25 (0.85-1.84) 4.79 (2.27-10.11) 1.52 (1.07-2.18) 1.39 (0.98-1.96) 1.00 1.16 (0.41-3.27) 1.55 (0.56-4.31) 0.90 (0.63-1.27) 0.81 (0.59-1.11) 1.00 1.09 (0.71-1.68)	Age*sex interaction, comorbidity, activity of daily living disability, smoking status, physical activity, education

Park SY et al, 2012, USA	Multiethnic Cohort Study	1993-1996 - 2007, 12.5 years follow-up	183211 men and women, age 45-75 years: 35664 deaths  21893 and 48108 never smokers: 2972/ 5152 deaths  21540 and 47601 never smokers, excluding first 3 years: 2619/4645 deaths	Self-reported	Cancer, heart disease	Exclusion of first 3 years in sensitivity analyses	BMI, men, all	<18.5 18.5-22.9 23-24.9 25-27.4 27.5-29.9 30-34.9 ≥35	1.98 (1.75-2.23) 1.25 (1.20-1.31) 1.00 0.97 (0.93-1.01) 1.02 (0.97-1.07) 1.23 (1.17-1.29) 1.60 (1.48-1.72)	Age, ethnicity, alcohol, smoking status, average number of cigarettes, squared average number of cigarettes, number of years smoked, number of years since quitting, interactions between ethnicity and smoking status, average number of cigarettes, squared average number of cigarettes and number of years smoked
							BMI, excluding baseline cancer and heart disease	<18.5 18.5-22.9 23-24.9 25-27.4 27.5-29.9 30-34.9 ≥35	1.97 (1.70-2.30) 1.24 (1.17-1.31) 1.00 0.99 (0.94-1.04) 1.05 (0.99-1.12) 1.28 (1.20-1.36) 1.80 (1.64-1.97)	
							BMI, further excluding ever smokers	<18.5 18.5-22.9 23-24.9 25-27.4 27.5-29.9 30-34.9 ≥35	1.42 (0.98-2.07) 1.06 (0.94-1.19) 1.00 0.94 (0.84-1.05) 1.14 (1.01-1.29) 1.45 (1.27-1.65) 2.37 (1.99-2.82)	
							BMI, further excluding deaths within 3 years	<18.5 18.5-22.9 23-24.9 25-27.4 27.5-29.9 30-34.9 ≥35	1.25 (0.81-1.91) 1.06 (0.93-1.20) 1.00 0.97 (0.86-1.09) 1.20 (1.05-1.37) 1.56 (1.36-1.79) 2.71 (2.26-3.26)	

						BMI, women, all	<18.5 18.5-22.9 23-24.9 25-27.4 27.5-29.9 30-34.9 ≥35 <18.5 18.5-22.9 23-24.9 25-27.4 27.5-29.9 30-34.9 ≥35 <18.5 18.5-22.9 23-24.9 25-27.4 27.5-29.9 30-34.9 ≥35 BMI, further excluding ever smokers	1.88 (1.72-2.04) 1.13 (1.07-1.19) 1.00 1.04 (0.98-1.10) 1.12 (1.06-1.19) 1.25 (1.18-1.33) 1.63 (1.53-1.74) 1.84 (1.66-2.04) 1.12 (1.05-1.19) 1.00 1.03 (0.97-1.11) 1.13 (1.05-1.22) 1.28 (1.19-1.37) 1.73 (1.59-1.87) 1.71 (1.47-1.99) 1.07 (0.98-1.17) 1.00 1.09 (0.99-1.20) 1.20 (1.08-1.33) 1.39 (1.26-1.54) 1.94 (1.73-2.19) 1.66 (1.42-1.95) 1.07 (0.97-1.18) 1.00 1.10 (0.99-1.21) 1.21 (1.08-1.35) 1.40 (1.26-1.55) 1.97 (1.74-2.23) 1.51 (0.20-11.17) 1.34 (0.92-1.96) 1.00 1.08 (0.78-1.48) 1.64 (1.18-2.28) 1.87 (1.36-2.58) 2.72 (1.81-4.08)	
						BMI, men, healthy never smokers (excluding first 3 years), Native Hawaiians	<18.5 18.5-22.9 23-24.9 25-27.4 27.5-29.9 30-34.9 ≥35 BMI, men, healthy never	0.70 (0.09-5.40) 1.27 (0.64-2.51) 1.00 1.16 (0.65-2.07) 1.18 (0.66-2.12) 1.67 (0.94-2.97) 3.05 (1.69-5.54) 1.31 (0.74-2.31)	



							years), Latinos  BMI, women, healthy never smokers (excluding first 3 years), Whites	23-24.9 25-27.4 27.5-29.9 30-34.9 ≥35 <18.5 18.5-22.9 23-24.9 25-27.4 27.5-29.9 30-34.9 ≥35	1.00 1.32 (1.07-1.62) 1.34 (1.08-1.67) 1.53 (1.23-1.89) 2.27 (1.77-2.91) 1.84 (1.22-2.78) 0.93 (0.74-1.17) 1.00 1.06 (0.84-1.34) 1.16 (0.89-1.51) 1.29 (1.00-1.66) 2.26 (1.68-3.05)	
Katzmarzyk PT et al, 2012, Canada	Canadian Heart Health Surveys	1986-1995 – 2004, 13.9 years follow-up	10522 men and women, age 18-74 years: 1149 deaths	Measured	No	First 6 months of follow-up excluded	BMI, men  BMI, women	<18.0 18.0-24.9 25.0-29.9 30-34.9 ≥35 <18.0 18.0-24.9 25.0-29.9 30-34.9 ≥35	0.84 (0.41-1.72) 1.00 0.99 (0.83-1.18) 1.16 (0.94-1.45) 1.41 (0.97-2.05) 1.80 (1.07-3.03) 1.00 1.16 (0.92-1.46) 1.47 (1.12-1.93) 1.85 (1.33-2.56)	Age, exam year, smoking status, alcohol, education
Park Y et al, 2012, USA	NIH-AARP Diet and Health Study	1995-1996 - 2009, 13 years follow-up	16471 non-Hispanic black men and women, age 50-71 years: 2609 deaths	Self-reported	Prevalent cancer or heart disease	No	BMI, all, never smokers  BMI, men  BMI, women	15-<20 20-<25 25-<30 30-<35 35-<40 40-50 15-<20 20-<25 25-<30 30-<35 35-<40 40-50 15-<20 20-<25 25-<30 30-<35 35-<40 40-50	1.97 (1.24-3.13) 1.00 0.97 (0.78-1.20) 1.31 (1.04-1.65) 1.67 (1.27-2.21) 2.23 (1.61-3.07) 2.12 (1.00-4.52) 1.00 1.27 (0.91-1.78) 1.56 (1.07-2.28) 2.48 (1.53-4.05) 2.80 (1.46-5.39) 1.85 (1.03-3.33) 1.00 0.78 (0.59-1.04) 1.17 (0.88-1.57) 1.35 (0.96-1.90) 1.93 (1.33-2.81)	Age, sex, education, marital status, smoking status, cigarettes per day, physical activity, alcohol, menopausal hormone therapy
Fontaine KR et al, 2012, Puerto Rico	Puerto Rico Heart Health Program	1965-1980, 12 years follow-up	5187 hispanic men, mean age 54.4 years	NA	Prevalent coronary heart disease	No	BMI, age 18-<60	<18.5 18.5-<25 25-<30	1.52 (1.07-2.17) 1.00 0.97 (0.84-1.12)	Age

			(35-79): 2619 deaths		excluded		BMI, age 60-<70	30-<35 ≥35 <18.5 18.5-<25 25-<30 30-<35 ≥35 <18.5 18.5-<25 25-<30 30-<35 ≥35	1.09 (0.88-1.34) 1.32 (0.70-2.48) 1.38 (1.04-1.83) 1.00 1.09 (0.96-1.25) 1.19 (0.98-1.44) 1.64 (0.94-2.85) 1.60 (1.08-2.37) 1.00 1.01 (0.81-1.26) 1.24 (0.88-1.73) 1.38 (0.44-4.35)	
Fontaine KR et al, 2012, USA	San Antonio Heart Study	1979 - 2000, 14 years follow-up	2758 men and women, mean age 43.5 years: 923 deaths	NA	No	No	BMI, age 18-<60  BMI, age 60-<70  BMI, age ≥70	<18.5 18.5-<25 25-<30 30-<35 ≥35  <18.5 18.5-<25 25-<30 30-<35 ≥35  <18.5 18.5-<25 25-<30 30-<35 ≥35	2.02 (0.49-8.30) 1.00 0.96 (0.72-1.28) 0.99 (0.71-1.40) 0.97 (0.66-1.42) 2.51 (1.00-6.27) 1.00 1.08 (0.82-1.42) 0.89 (0.65-1.42) 1.20 (0.85-1.72) 1.88 (0.44-8.04) 1.00 1.08 (0.74-1.59) 0.84 (0.53-1.32) 0.95 (0.58-1.56)	Age
Fontaine KR et al, 2012, USA	The Sacramento Area Latino Study on Aging (SALSA)	1998-1999 – 2006, 9 years follow-up	1625 men and women, age ≥60 years (mean 70.4): 419 deaths	NA	No	No	BMI, age 60-<70  BMI, age ≥70	<18.5 18.5-<25 25-<30 30-<35 ≥35  <18.5 18.5-<25 25-<30 30-<35 ≥35	- 1.00 0.87 (0.50-1.53) 0.81 (0.46-1.46) 1.44 (0.80-2.59) - 1.00 0.72 (0.55-0.94) 0.60 (0.45-0.82) 0.91 (0.65-1.21)	Age
Jerant A et al, 2012, USA	Medical Expenditures Panel Surveys	2000-2005 -2006, 3.9 years follow-up	50994 men and women, age 18-90 years: 1683 deaths	Self-reported	No	No	BMI	<20 20-<25 25-<30 30-<35 ≥35	1.78 (1.44-2.20) 1.00 0.80 (0.60-0.92) 0.93 (0.78-1.11) 1.26 (1.00-1.59)	Age, sex, race/ethnicity, education, income, health insurance, residence, census region, smoking status

De Hollander EL et al, 2012, Netherlands	Survey in Europe on Nutrition and the Elderly (SENECA)	1988-1989 - 1999, 10 years follow-up	1980 men and women, age 70-75 years: 751 deaths	Measured	Chronic diseases at baseline excluded in sensitivity analyses	First 2 years of follow-up excluded in sensitivity analyses	BMI	<20 20-25 25-30 ≥30	1.06 (0.73-1.55) 1.00 0.92 (0.78-1.09) 1.05 (0.89-1.29)	Age, sex, smoking status, education
Chen Z et al, 2012, China	45 Areas of China	1990-1991 – 2006, 15 years follow-up	142214 men, age 45-79 years: 17800 deaths	Measured	Chronic obstructive pulmonary disease, asthma, heart disease, stroke, cancer, peptic ulcer, cirrhosis, kidney disease, hepatitis, tuberculosis	Excluded first 5 years of follow-up	BMI	15.0-<18.5 18.5-<20.0 20.0-<22.5 22.5-<25.0 25.0-<27.5 27.5-<30.0 30.0-<35.0	1.16 (1.10-1.22) 1.07 (1.02-1.12) 1.03 (0.99-1.07) 1.00 1.09 (1.02-1.16) 1.21 (1.09-1.34) 1.43 (1.21-1.68)	Age, area, smoking status, alcohol, education
Claessen H et al, 2012, Germany	German Construction Workers Cohort	1986-1992 – 2007-2008, 17.24 years follow-up	19476 men, age 26-65 years: 2211 deaths	Measured	No	No	BMI	<25.0 25.0-29.9 ≥30.0	1.00 0.83 (0.76-0.92) 0.99 (0.88-1.12)	Age, nationality, alcohol, smoking status
Rhee CW et al, 2012, Korea	Seoul Male Cohort Study	1993-2008, 15 years follow-up	14533 men, age 40-59 years: 990 deaths	Self-reported	No	No	BMI	<18.5 18.5-22.9 23.0-24.9 ≥25.0	0.98 (0.82-1.18) 1.00 1.00 (0.85-1.19) 1.63 (0.97-2.74)	Age, smoking status, alcohol, regular exercise, sleep hours, education, hypertension, diabetes
Cohen SS et al, 2012, USA	Southern Community Cohort Study	2002-2009 - 2011, 8.9 years follow-up	22014 black and 9343 white men 30810 black and 14447 white women, age 40-79 years: 5427 deaths	Self-reported, measured in 25% of participants	Exclusion of participant with cancer, heart disease and stroke in sensitivity analyses	Excluding first 12 months of follow-up	BMI, black men, total mortality  BMI, white men  BMI, black women	<20 20-24.9 25-29.9 30-34.9 35-39.9 ≥40 <20 20-24.9 25-29.9 30-34.9 35-39.9 ≥40 <20 20-24.9 25-29.9	1.47 (1.24-1.74) 1.00 0.80 (0.72-0.90) 0.70 (0.61-0.80) 0.90 (0.74-1.08) 1.13 (0.89-1.43) 0.96 (0.67-1.39) 1.00 0.72 (0.60-0.85) 0.75 (0.60-0.93) 1.12 (0.87-1.45) 1.37 (1.02-1.84) 1.71 (1.35-2.17) 1.00 0.80 (0.69-0.94)	Age, education, income, source, cigarette smoking status and packs per day, alcohol

							BMI, white women	30-34.9 35-39.9 $\geq$ 40 $<$ 20 20-24.9 25-29.9 30-34.9 35-39.9 $\geq$ 40 $<$ 20 20-24.9 25-29.9 30-34.9 35-39.9 $\geq$ 40	0.66 (0.56-0.78) 0.72 (0.60-0.86) 0.87 (0.72-1.04) 1.40 (1.04-1.89) 1.00 0.96 (0.77-1.18) 1.07 (0.86-1.34) 1.03 (0.79-1.34) 1.47 (1.15-1.89) 2.06 (1.53-2.79) 1.00 0.72 (0.61-0.86) 0.66 (0.54-0.80) 0.72 (0.58-0.89) 1.09 (0.89-1.35) 0.81 (0.35-1.87) 1.00 0.84 (0.62-1.13) 0.85 (0.62-1.17) 1.12 (0.79-1.59) 1.74 (1.24-2.41)	
Dobson A et al, 2012, Australia	Australian Longitudinal Study on Women's Health	1996 – NA, 10 years follow-up	7438 women, age 71-79 years: 1734 deaths	Self-reported	No	No	BMI, women	18.5-<25.0 25.0-<30.0 $\geq$ 30.0	1.00 0.82 (0.72-0.92) 1.03 (0.88-1.21)	Age, smoking status, alcohol, physical activity
Dobson A et al, 2012, Australia	Health in Men Study	1996 – NA, 10 years follow-up	6053 men, age 71-79 years: 2290 deaths	Self-reported	No	No	BMI, men	18.5-<25.0 25.0-<30.0 $\geq$ 30.0	1.00 0.87 (0.77-0.99) 0.98 (0.83-1.15)	Age, smoking status, alcohol, physical activity
Hotchkiss JW et al, 2013, Scotland	Scottish Health Survey Cohort	1995, 1998, 2003 – 2008, 10.1 years follow-up	19329 men and women, age 18-86 years: 1495 deaths	Measured	Subjects with prior CHD or stroke hospital admissions	First 3-5 years excluded in sensitivity analyses, results not reported	BMI, men  BMI, women	<18.5 18.5-<25 25-<30 $\geq$ 30 <18.5 18.5-<25 25-<30 $\geq$ 30	2.53 (1.58-4.06) 1.00 0.64 (0.54-0.77) 0.82 (0.67-1.01) 2.69 (1.80-4.03) 1.00 0.98 (0.81-1.18) 0.93 (0.75-1.15)	Age, smoking status, alcohol, year of survey
Choi KM et al, 2013 Korea	South-West Seoul Study	1999 – 2009, 10.3 years follow-up	2317 men and women, age 60-92 years: 393 deaths	Measured	No	No	BMI, no MetS  BMI, MetS	18.5-<23 23-<25 $\geq$ 25 18.5-<23 23-<25 $\geq$ 25	1.39 (1.00-1.94) 1.00 1.25 (0.88-1.76) 2.49 (1.61-3.83) 1.77 (1.16-2.69) 1.49 (1.04-2.14)	Age, sex, smoking status

Schmidt M et al, 2013, Denmark	Danish Military Conscripts	1977 – 2010, 31 years follow-up	6502 men, age 22 years: 507 deaths	Measured	No	No	BMI	<18.5 18.5-24.9 25.0-29.9 ≥30.0	1.0 (0.7-1.5) 1.0 0.9 (0.7-1.2) 2.1 (1.3-3.5)	Cognitive test score, education
Yano Y et al, 2013, Japan	Jichi Medical School Cohort Study	1992-1993 – 2002, 10.2 years follow-up	3641 men and women, mean age 53.7 years: 240 deaths	Measured	No	No	BMI	19.5 22.7 27.0	1.70 (1.24-2.33) 1.00 1.24 (0.91-1.70)	Age, sex, current smoking, SBP, diabetes
Masters RK et al, 2013, USA	National Health Interview Survey	1986-2004 – 2006, ~12.4 years follow-up	373185 men and 416908 women, age 25-84.9 years: 64443/ 58937 deaths	Self-reported	No	No	BMI, men  BMI, women	18.5-29.9 30-34.9 35-39.9 ≥40 18.5-29.9 30-34.9 35-39.9 ≥40	1.00 1.11 (1.09-1.14) 1.42 (1.36-1.49) 2.14 (1.97-2.33) 1.00 1.11 (1.08-1.14) 1.37 (1.32-1.43) 1.90 (1.80-2.00)	Age, education, income, marital status, region of residence, race/ ethnicity
Ma J et al, 2013, USA	National Health Interview Survey	1987-1995 – 2006, 16 years follow-up	210818 men and women, age 18-99 years: 34239 deaths  106964 never smokers: 14763 deaths  48261 former smokers: 10516 deaths  55593 current smokers: 8960 deaths	Self-reported	Prevalent fair or bad health excluded	First 5 years of follow-up excluded in sensitivity analyses	BMI, never smokers, age 18-44 years, men  BMI, former smokers  BMI, current smokers  BMI, never smokers, age 45-64 years, men  BMI, former smokers  BMI, current smokers	15.0-18.4 18.5-24.9 25.0-29.9 30.0-34.9 ≥35.0 15.0-18.4 18.5-24.9 25.0-29.9 30.0-34.9 ≥35.0 15.0-18.4 18.5-24.9 25.0-29.9 30.0-34.9 ≥35.0 15.0-18.4 18.5-24.9 25.0-29.9 30.0-34.9 ≥35.0 15.0-18.4 18.5-24.9 25.0-29.9 30.0-34.9 ≥35.0 15.0-18.4 18.5-24.9 25.0-29.9 30.0-34.9 ≥35.0 15.0-18.4	0.85 (0.31-2.32) 1.00 0.94 (0.77-1.15) 1.22 (0.95-1.56) 3.18 (2.37-4.27) 0.57 (0.08-4.06) 0.92 (0.74-1.16) 0.87 (0.70-1.07) 1.33 (0.96-1.85) 2.15 (1.32-3.49) 3.17 (1.87-5.38) 2.29 (1.96-2.68) 1.96 (1.65-2.34) 2.71 (2.16-3.39) 4.03 (2.92-5.56) 0.38 (0.05-2.87) 1.00 1.10 (0.92-1.31) 1.62 (1.28-2.04) 2.40 (1.70-3.38) 3.96 (1.85-8.49) 1.44 (1.22-1.70) 1.43 (1.22-1.68) 1.94 (1.60-2.35) 2.50 (1.90-3.30) 6.47 (4.42-9.46)	Age, education, race



						BMI, current smokers	$\geq 35.0$	3.66 (2.95-4.55)
							15.0-18.4	5.02 (3.98-6.33)
							18.5-24.9	3.09 (2.73-3.50)
							25.0-29.9	3.42 (3.01-3.90)
							30.0-34.9	3.95 (3.26-4.79)
						$\geq 35.0$	4.74 (3.51-6.41)	
						BMI, never smokers, age 65-99 years, women	15.0-18.4	1.31 (1.15-1.50)
							18.5-24.9	1.00
							25.0-29.9	0.97 (0.92-1.02)
							30.0-34.9	1.10 (1.01-1.19)
						$\geq 35.0$	1.21 (1.04-1.40)	
						BMI, former smokers	15.0-18.4	1.73 (1.41-2.12)
							18.5-24.9	1.28 (1.21-1.36)
							25.0-29.9	1.20 (1.11-1.30)
							30.0-34.9	1.49 (1.33-1.67)
						$\geq 35.0$	1.72 (1.44-2.05)	
						BMI, current smokers	15.0-18.4	3.12 (2.58-3.77)
							18.5-24.9	2.05 (1.90-2.22)
							25.0-29.9	1.73 (1.53-1.96)
							30.0-34.9	2.35 (1.90-2.93)
						$\geq 35.0$	2.19 (1.63-2.96)	
						BMI, never smokers, age 18-44 years, excluding first 5 years of follow-up	15.0-18.4	0.90 (0.54-1.50)
							18.5-24.9	1.00
							25.0-29.9	1.23 (1.04-1.45)
							30.0-34.9	1.53 (1.25-1.87)
						$\geq 35.0$	3.01 (2.33-3.88)	
						BMI, former smokers	15.0-18.4	1.72 (0.90-3.27)
							18.5-24.9	1.00 (0.81-1.23)
							25.0-29.9	1.06 (0.88-1.28)
							30.0-34.9	1.53 (1.11-2.09)
						$\geq 35.0$	2.16 (1.39-3.37)	
						BMI, current smokers	15.0-18.4	3.43 (2.59-4.53)
							18.5-24.9	2.72 (2.40-3.08)
							25.0-29.9	2.52 (2.17-2.91)
							30.0-34.9	2.90 (2.36-3.56)
						$\geq 35.0$	4.12 (3.13-5.43)	
						BMI, never smokers, age 45-64 years, excluding first 5 years of follow-up	15.0-18.4	1.50 (0.99-2.27)
							18.5-24.9	1.00
							25.0-29.9	1.12 (0.99-1.27)
							30.0-34.9	1.68 (1.44-1.96)
						$\geq 35.0$	2.28 (1.87-2.78)	
						BMI, former smokers	15.0-18.4	2.67 (1.59-4.47)
							18.5-24.9	1.42 (1.27-1.59)



							BMI, former smokers	15.0-18.4 18.5-24.9 25.0-29.9 30.0-34.9 $\geq$ 35.0	2.98 (2.09-4.25) 1.44 (1.30-1.60) 1.50 (1.36-1.66) 2.11 (1.91-2.34) 3.28 (2.87-3.76)	
							BMI, current smokers	15.0-18.4 18.5-24.9 25.0-29.9 30.0-34.9 $\geq$ 35.0	5.63 (4.75-6.67) 3.22 (2.94-3.53) 3.02 (2.75-3.30) 3.59 (3.15-4.10) 5.10 (4.29-6.08)	
							BMI, never smokers, age 65-99 years, all subjects (including poor and fair health at baseline)	15.0-18.4 18.5-24.9 25.0-29.9 30.0-34.9 $\geq$ 35.0	1.17 (1.04-1.32) 1.00 0.99 (0.94-1.04) 1.11 (1.04-1.19) 1.34 (1.20-1.51)	
							BMI, former smokers	15.0-18.4 18.5-24.9 25.0-29.9 30.0-34.9 $\geq$ 35.0	1.83 (1.54-2.18) 1.25 (1.19-1.31) 1.21 (1.15-1.27) 1.47 (1.36-1.59) 1.82 (1.60-2.08)	
							BMI, current smokers	15.0-18.4 18.5-24.9 25.0-29.9 30.0-34.9 $\geq$ 35.0	2.13 (1.75-2.58) 1.87 (1.75-1.99) 1.73 (1.60-1.86) 2.21 (1.92-2.55) 2.41 (1.91-3.04)	
Hinnouho GM et al, 2013, United Kingdom	Whitehall Study 2	1985-1988 – 2010, 17.7 years follow-up	5269 men and women, age 39-62 years: 413 deaths	Measured	No	First 5 years excluded in sensitivity analysis	BMI	18.5-24.9 25-29.9 $\geq$ 30	1.00 1.01 (0.82-1.26) 1.68 (1.27-2.22)	Age, sex, occupational position, physical activity, smoking status, alcohol, fruit and vegetable consumption, marital status, ethnicity
Takata Y et al, 2013, Japan	Fukuoka Prefecture	1998 – 2010, 12 years follow-up	675 men and women, age 80 years: 397 deaths	Measured	No	No	BMI	<19.5 19.5-<21.1 21.1-<22.5 22.5-<23.8 23.8-<26.0 $\geq$ 26.0	1.00 0.78 (0.55-1.12) 0.75 (0.52-1.08) 0.47 (0.32-0.70) 0.55 (0.38-0.79) 0.61 (0.42-0.89)	Gender, smoking status, alcohol, current outpatient, SBP, serum glucose, total cholesterol
Dahl AK et al, 2013, Sweden	OCTO-Twin, Gender, and NONA studies	NA-NA, 18 years follow-up	882 men and women, age 70-95 years: 667 deaths	Measured	No	No	BMI	<25.0 25.0-29.9 30.0	1.00 0.80 (0.67-0.95) 0.93 (0.71-1.22)	Age, sex, education, multimorbidity, BMI change, age X BMI change interaction
Stenholm S et al, 2014,	Mini-Finland Health	1978-1980 – 2011,	3594 men and women, age	Measured	Prevalent cardiovascular	First 5 years of	BMI, age 50-69 years	18.5-24.9 25.0-29.9	1.00 0.99 (0.89-1.09)	Age, sex, education, smoking status, alcohol use, physical

Finland	Examination Survey	17.9 years follow-up	50-91 years: 3043 deaths		disease and cancer excluded in sensitivity analyses (not reported)	follow-up excluded in sensitivity analyses (results not reported)	BMI, age $\geq 70$ years	$\geq 30.0$ 18.5-24.9 25.0-29.9 $\geq 30.0$	1.24 (1.10-1.40) 1.00 0.84 (0.72-0.97) 0.81 (0.67-0.98)	activity, handgrip strength
Singh PN et al, 2014, USA	Adventist Health Study 2	2002/2007 – 2009, 5.7 years follow-up	22884 black men and women, age 58-108 years: 879 deaths  5131 and 13640 never smokers:	Self-reported, validated	No	No	BMI, women  BMI, men  BMI, women, never smokers  BMI, men, never smokers	<23.7 23.7-<26.6 26.6-<29.6 29.6-33.8 >33.8 <23.6 23.6-<25.8 25.8-<27.8 27.8-30.8 >30.8 <18.5 18.5-24.9 25-29.9 $\geq 30$ <18.5 18.5-24.9 25-29.9 $\geq 30$	1.40 (1.05-1.86) 1.08 (0.80-1.44) 1.00 1.23 (0.92-1.63) 1.42 (1.06-1.88) 1.44 (0.95-2.16) 1.19 (0.79-1.79) 1.00 1.35 (0.88-2.04) 1.66 (1.10-2.49) 1.24 (0.66-2.33) 1.00 0.95 (0.73-1.24) 1.43 (1.11-1.84) 4.42 (2.14-9.13) 1.00 0.85 (0.58-1.25) 1.59 (1.02-2.49)	Age, smoking status, vegetarian diet, vigorous physical activity
Ghaem Maralani H et al, 2014, Australia	Blue Mountains Eye Study	1992-1994 – 1997-1999 - 2007, 14.7 years follow-up	2216 men and women, age $\geq 49$ years: 599 deaths	Measured	No	No	BMI, age $\leq 70$ years  BMI, age $>70$ years	<18.5 18.5-<25 25-<30 $\geq 30$ <18.5 18.5-<25 25-<30 $\geq 30$	1.82 (0.80-4.15) 1.00 1.07 (0.82-1.41) 1.44 (1.05-1.98) 1.20 (0.53-2.72) 1.00 0.98 (0.77-1.25) 0.94 (0.67-1.32)	Age, sex, smoking status, pre-existing disease (hypertension, diabetes, angina, acute myocardial infarction, stroke, cancer)
Xiao Q et al, 2014, USA	Prostate, Lung, Colorectal and Ovarian (PLCO) Cancer Screening Trial	1993-2001 – 2009, 13 years follow-up	7446 non-Hispanic black and 130598 white men and women, age 49-78 years: 1495/ 18236 deaths	Self-reported	Prevalent cancer, heart attack or stroke excluded in sensitivity analyses	No	BMI, non-hispanic black, all men  BMI, non-hispanic black, healthy men who never	15.0-<22.5 22.5-<25.0 25.0-<27.5 27.5-<30.0 30.0-<35.0 35.0-<40.0 40.0-<50.0 15.0-<22.5 22.5-<25.0	1.32 (1.04-1.67) 1.00 0.95 (0.77-1.19) 0.88 (0.70-1.10) 1.15 (0.93-1.43) 1.25 (0.93-1.67) 1.87 (1.25-2.79) 1.33 (0.84-2.12) 1.00	Age, education, marital status, smoking status, pack-years, years since quitting smoking  Healthy men and women who never smoked or quit $\geq 5$ years

					smoked or quit 5 years before baseline	25.0-<27.5 27.5-<30.0 30.0-<35.0 35.0-<40.0 40.0-<50.0	0.90 (0.62-1.31) 0.92 (0.63-1.35) 1.03 (0.71-1.49) 1.34 (0.84-2.16) 2.57 (1.48-4.54)	ago: age, education marital status, remote former smoking, previous-pack-years, years since quitting smoking
					BMI, non-hispanic white, all men	15.0-<22.5 22.5-<25.0 25.0-<27.5 27.5-<30.0 30.0-<35.0 35.0-<40.0 40.0-<50.0	1.29 (1.19-1.40) 1.00 0.95 (0.90-1.01) 0.99 (0.94-1.06) 1.17 (1.10-1.24) 1.60 (1.47-1.75) 2.06 (1.80-2.37)	
					BMI, non-hispanic white, healthy men who never smoked or quit 5 years before baseline	15.0-<22.5 22.5-<25.0 25.0-<27.5 27.5-<30.0 30.0-<35.0 35.0-<40.0 40.0-<50.0	1.26 (1.11-1.44) 1.00 0.99 (0.91-1.08) 1.10 (1.01-1.19) 1.23 (1.13-1.34) 1.73 (1.53-1.96) 2.33 (1.93-2.82)	
					BMI, non-hispanic black, all women	15.0-<22.5 22.5-<25.0 25.0-<27.5 27.5-<30.0 30.0-<35.0 35.0-<40.0 40.0-<50.0	1.55 (1.07-2.24) 1.00 0.80 (0.58-1.10) 0.84 (0.61-1.14) 0.89 (0.67-1.19) 1.04 (0.75-1.44) 1.50 (1.06-2.14)	
					BMI, non-hispanic black, healthy women who never smoked or quit 5 years before baseline	15.0-<22.5 22.5-<25.0 25.0-<27.5 27.5-<30.0 30.0-<35.0 35.0-<40.0 40.0-<50.0	1.51 (0.81-2.79) 1.00 0.89 (0.55-1.44) 0.94 (0.59-1.48) 0.90 (0.58-1.40) 1.00 (0.61-1.63) 1.67 (1.00-2.14)	
					BMI, non-hispanic white, all women	15.0-<22.5 22.5-<25.0 25.0-<27.5 27.5-<30.0 30.0-<35.0 35.0-<40.0 40.0-<50.0	1.29 (1.19-1.40) 1.00 0.97 (0.90-1.05) 1.07 (0.98-1.16) 1.22 (1.13-1.33) 1.41 (1.27-1.57) 2.20 (1.95-2.49)	
					BMI, non-hispanic white, healthy women who never smoked or quit 5 years before baseline	15.0-<22.5 22.5-<25.0 25.0-<27.5	1.27 (1.14-1.43) 1.00 1.05 (0.94-1.16)	

							baseline	27.5-<30.0 30.0-<35.0 35.0-<40.0 40.0-<50.0	1.11 (0.99-1.24) 1.34 (1.21-1.49) 1.56 (1.36-1.79) 2.46 (2.10-2.88)	
McTigue KM et al, 2014, USA	Women's Health Initiative	1993-1998 - 2005, 7.82 years follow-up	156775 women, age 50-79 years: NA	Measured	No	No	BMI, all	18.5-24.9 25-29.9 30-34.9 35-39.9 ≥40	1.00 0.97 (0.92-1.02) 1.16 (1.09-1.23) 1.53 (1.41-1.65) 1.88 (1.71-2.07)	Age, smoking status, education, participant's cohort of the WHI
							BMI, white women	18.5-24.9 25-29.9 30-34.9 35-39.9 ≥40	1.00 0.97 (0.92-1.03) 1.15 (1.07-1.22) 1.51 (1.39-1.65) 1.97 (1.77-2.20)	
							BMI, African American women	18.5-24.9 25-29.9 30-34.9 35-39.9 ≥40	1.00 1.07 (0.88-1.31) 1.28 (1.04-1.57) 1.58 (1.26-1.98) 1.55 (1.20-2.00)	
							BMI, hispanic women	18.5-24.9 25-29.9 30-34.9 35-39.9 ≥40	1.00 0.88 (0.61-1.26) 1.37 (0.95-1.99) 2.15 (1.39-3.31) 2.59 (1.55-4.31)	
Buys DR et al, 2014, USA	University of Alabama at Birmingham Study of Aging	1999-2001 – NA, 8.5 years follow-up	1000 men and women, age ≥65 years: 382 deaths	Measured and self-reported	No	No	BMI	≤18.5 >18.5-25 >25-30 >30-35 ≥35	1.57 (0.88-2.82) 1.00 0.94 (0.73-1.21) 0.80 (0.58-1.09) 0.73 (0.49-1.09)	Age, life-space, marital status, social support, comorbidity score, rural versus urban residence, race, gender, education
Ford DW et al, 2014, USA	Geisinger Rural Health Study	2009-2013, 3.1 years follow-up	2995 men and women, age ≥74 years: 360 deaths	Self-reported	No	No	BMI	<18.5 18.5-24.9 25-29.9 30-34.9 ≥35	1.85 (1.09-3.14) 1.00 0.71 (0.55-0.91) 0.82 (0.60-1.11) 0.89 (0.62-1.51)	Age, sex, smoking status, weight gain, weight loss
Joshy G et al, 2014, Australia	The 45 and Up Study	2006-2008 – 2012, 3.9 years follow-up	246314 men and women, age ≥45 years: 11127 deaths 41754 healthy men and 66489 healthy women, never smokers:	Self-reported, validated	CVD, cancer	First 2 years of follow-up	BMI, men, never smokers	15-18.49 18.5-19.99 20-22.49 22.50-24.99 25.00-27.49 27.50-29.99 30-34.99 35-50 15-18.49	1.85 (1.04-3.27) 1.84 (1.20-2.81) 1.49 (1.18-1.88) 1.00 0.99 (0.80-1.23) 1.08 (0.84-1.38) 1.45 (1.12-1.88) 2.61 (1.81-3.78) 1.93 (1.35-2.76)	Age, region of residence, household income, education, alcohol intake, health insurance
							BMI, women, never smokers			

			1463 deaths					18.5-19.99 20-22.49 22.50-24.99 25.00-27.49 27.50-29.99 30-34.99 35-50	1.74 (1.29-2.35) 1.45 (1.16-1.82) 1.00 1.01 (0.80-1.28) 1.06 (0.81-1.38) 1.21 (0.93-1.57) 1.66 (1.18-2.33)	
Patel AV et al, 2014, USA	Cancer Prevention Study 2	1982 – 2010, 28 years follow-up	955431 white and black men and women, age $\geq$ 30 years: 453102 deaths  453833 white and black men and women, never smokers: 202267 deaths	Self-reported	Analyses were stratified by prevalent disease (cancer, heart disease, stroke, emphysema, chronic bronchitis, asthma)	No	BMI, white smokers with prevalent disease, men  BMI, white smokers without prevalent disease  BMI, white never smoker with prevalent disease  BMI, white never smoker without prevalent disease	15.0-18.4 18.5-19.9 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 35.0-39.9 $\geq$ 40.0 15.0-18.4 18.5-19.9 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 35.0-39.9 $\geq$ 40.0 15.0-18.4 18.5-19.9 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 35.0-39.9 $\geq$ 40.0 15.0-18.4 18.5-19.9 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 35.0-39.9 $\geq$ 40.0 15.0-18.4 18.5-19.9 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 35.0-39.9 $\geq$ 40.0	1.66 (1.55-1.76) 1.47 (1.39-1.55) 1.18 (1.15-1.22) 1.00 0.96 (0.94-0.98) 1.02 (1.00-1.05) 1.15 (1.12-1.19) 1.28 (1.19-1.37) 1.52 (1.22-1.89) 1.29 (1.18-1.42) 1.34 (1.27-1.42) 1.15 (1.12-1.18) 1.00 0.99 (0.97-1.01) 1.06 (1.04-1.08) 1.24 (1.21-1.28) 1.50 (1.40-1.60) 2.00 (1.63-2.45) 1.34 (1.16-1.54) 1.38 (1.25-1.53) 1.11 (1.05-1.16) 1.00 1.06 (1.02-1.10) 1.14 (1.09-1.19) 1.42 (1.35-1.50) 1.75 (1.55-1.97) 1.18 (0.75-1.86) 1.25 (1.08-1.45) 1.06 (0.96-1.17) 1.01 (0.97-1.05) 1.00 1.07 (1.04-1.10) 1.28 (1.24-1.32) 1.50 (1.44-1.56) 2.17 (1.98-2.39) 2.52 (1.92-3.30)	Age, race, education, physical activity, alcohol, marital status, aspirin use, fat consumption, vegetable consumption, and among ever smokers: smoking status, cigarettes per day, years since quitting + analyses with prevalent disease further adjusted for cancer, heart disease, stroke, emphysema, chronic bronchitis, asthma

						BMI, black smokers with prevalent disease, men	15.0-18.4 18.5-19.9 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 $\geq$ 35.0	1.35 (0.95-1.93) 1.36 (1.04-1.77) 1.10 (0.94-1.29) 1.00 0.97 (0.86-1.11) 0.95 (0.83-1.10) 1.06 (0.90-1.23) 1.14 (0.86-1.52)	
						BMI, black smokers without prevalent disease	15.0-18.4 18.5-19.9 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 $\geq$ 35.0	0.99 (0.66-1.50) 1.57 (1.24-2.00) 1.14 (1.00-1.29) 1.00 1.03 (0.94-1.14) 1.00 (0.89-1.12) 1.11 (0.97-1.28) 1.15 (0.88-1.51)	
						BMI, black never smoker with prevalent disease	15.0-18.4 18.5-19.9 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 $\geq$ 35.0	1.76 (0.98-3.17) 2.00 (1.17-3.45) 1.36 (0.99-1.86) 1.00 0.76 (0.60-0.95) 0.88 (0.70-1.12) 1.00 (0.79-1.27) 0.91 (0.57-1.46)	
						BMI, black never smoker without prevalent disease	15.0-18.4 18.5-19.9 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 $\geq$ 35.0	0.78 (0.29-2.13) 1.60 (0.94-2.72) 1.05 (0.83-1.34) 1.00 1.18 (1.01-1.38) 1.24 (1.05-1.47) 1.53 (1.28-1.83) 1.97 (1.41-2.76)	
						BMI, white smokers with prevalent disease, women	15.0-18.4 18.5-19.9 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 35.0-39.9 $\geq$ 40.0	1.69 (1.61-1.77) 1.21 (1.16-1.26) 1.05 (1.03-1.08) 1.00 1.04 (1.01-1.08) 1.12 (1.08-1.17) 1.20 (1.16-1.25) 1.32 (1.24-1.40) 1.58 (1.43-1.74)	
						BMI, white smokers without prevalent disease	15.0-18.4 18.5-19.9	1.56 (1.49-1.63) 1.14 (1.10-1.18)	



							BMI, black never smoker with prevalent disease	15.0-18.4 18.5-19.9 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 35.0-39.9 ≥40.0	1.11 (0.79-1.55) 1.06 (0.81-1.38) 1.14 (0.98-1.34) 1.00 1.15 (1.01-1.30) 1.14 (0.99-1.30) 1.19 (1.05-1.34) 1.45 (1.23-1.70) 2.06 (1.67-2.56)	
							BMI, black never smoker without prevalent disease	15.0-18.4 18.5-19.9 20.0-22.4 22.5-24.9 25.0-27.4 27.5-29.9 30.0-34.9 35.0-39.9 ≥40.0	1.38 (1.03-1.85) 1.04 (0.82-1.30) 0.97 (0.85-1.10) 1.00 1.08 (0.97-1.19) 1.27 (1.14-1.42) 1.32 (1.19-1.46) 1.64 (1.40-1.91) 1.78 (1.43-2.21)	
Gao S et al, 2014, China	Rural Elderly Chinese (Sichuan and Shandong)	2003-2005 – NA, 7 years follow-up	2000 men and women, age ≥65 years: 473 deaths	Measured	No	Excluded 1 <sup>st</sup> year of follow-up in sensitivity analysis	BMI	<18.5 18.5-24.9 25.0-29.9 ≥30.0	1.64 (1.30-2.06) 1.00 1.09 (0.82-1.46) 0.39 (0.15-1.06)	Age, sex, diabetes, stroke, cognitive decline score
Liu Y et al, 2014, China	Kailuan Study	2006-2007 – 2010, 4.02 years follow-up	95429 men and women, age 18-98 years: 1843 deaths	Measured	No	No	BMI	<25 25-<30 ≥30	1.00 (0.84-1.19) 0.86 (0.72-1.02) 1.00	Age, sex, average income, education, alcohol, history of MI, stroke, cancer
Roh L et al, 2014, Switzerland	Swiss MONICA study, National Research Program 1A, the SOMIPOPS study, and the Swiss Health Survey	1977-1993 – 2008, 19.2 years follow-up	31578 men and women, age 25-74 years: 5694 deaths	Measured and self-reported	No	Exclusion of first 1-5 years in sensitivity analyses	BMI, all  BMI, measured BMI  BMI, self-reported BMI	<18.5 18.5-<25 25-<30 ≥30.0 <18.5 18.5-<25 25-<30 ≥30.0 <18.5 18.5-<25 25-<30 ≥30.0	1.37 (1.14-1.65) 1.00 1.02 (0.97-1.09) 1.32 (1.22-1.43) 1.16 (0.88-1.53) 1.00 1.01 (0.94-1.09) 1.31 (1.18-1.44) 1.56 (1.24-2.05) 1.00 1.04 (0.95-1.15) 1.32 (1.14-1.53)	Age, age squared, study waves, smoking status, sports frequency, healthy eating, education
Clark DO et al, 2014, USA	Indianapolis-Ibadan	1992-2001 – 2011, 10	1197 Yoruba Nigerian and	Measured	No	First year of follow-	BMI, Yoruba Nigerians	<18.5 18.5-24.9	1.35 (1.12-1.63) 1.00	Age, sex, alcohol, smoking

	Dementia Project	years follow-up	1269 African American men and women, age $\geq 70$ years: 563/553 deaths			up excluded in sensitivity analyses (partly reported)	BMI, African Americans	25.0-29.9 $\geq 30.0$ $< 18.5$ 18.5-24.9 25.0-29.9 $\geq 30.0$	0.88 (0.67-1.16) 0.92 (0.61-1.39) 2.49 (1.40-4.43) 1.00 0.90 (0.72-1.14) 1.06 (0.85-1.33)	
Wu CY et al, 2014, China	Taipei Geriatric Health Examination Database	2006-2010, 3.3 years follow-up	77541 men and women, age $\geq 65$ years: 3842 deaths	Measured	No	No	BMI	<18.5 18.5-24.9 25.0-29.9 30.0-34.9 $\geq 35.0$	1.92 (1.71-2.15) 1.00 0.82 (0.76-0.88) 0.82 (0.69-0.98) 1.59 (1.06-2.38)	Age, sex, marital status, education, smoking status, alcohol, exercise
Mehta NK et al, 2014, Finland	Health 2000 Survey	2000-2001 – 2011, ~10.5 years follow-up	2505 men and women, age 50-74 years: 335 deaths	Measured	No	No	BMI	<25.0 25.0-29.9 $\geq 30.0$	1.00 1.08 (0.82-1.43) 1.22 (0.91-1.65)	Age, sex, education, cigarette smoking status
Lee Y et al, 2014, Korea	Living Profiles of Older People Survey	2008 – 2011, 3 years follow-up	11844 men and women, age $\geq 60$ years: 832 deaths	Measured	No	No	BMI	<18.5 18.5-24.9 25.0-29.9 $\geq 30.0$	2.04 (1.55-2.70) 1.00 0.74 (0.57-0.96) 1.01 (0.57-1.79)	Age, sex, marital status, education, household income, comorbidity, cognitive impairment, smoking status, alcohol, nutritional risk
He Y et al, 2014, China	Machinery Factory Employees in Xi'an	1976-1994 – 2011, 30.4 years follow-up	1696 men and women, age 36-65 years: 655 deaths	Measured	Prevalent cancers and CVD cases excluded	No	BMI, 1976  BMI, 1994	<18.5 18.5-22.9 23.0-24.9 $\geq 25.0$ $< 18.5$ 18.5-22.9 23.0-24.9 $\geq 25.0$	0.93 (0.67-1.30) 1.00 0.69 (0.57-0.84) 0.75 (0.60-1.00) 1.43 (1.00-2.04) 1.00 1.14 (0.90-1.43) 1.27 (1.02-1.59)	Age, sex, marital status, occupation, education, alcohol drinking, smoking status
Kokkinos P et al, 2014, USA	Veterans Affairs Medical Centers	1986-2011 - 2012, 10.8 years follow-up	18033 men, mean age 58.4 years: 5070 deaths	Measured	Implanted pacemakers, left bundle branch block, unable to complete exercise test, COPD, exercise capacity <2 METs	No	BMI  BMI, excluding first 2 years of follow-up	18.5-20.0 20.1-23.9 24.0-27.9 28.0-31.9 $\geq 32.0$ 18.5-20.0 20.1-23.9 24.0-27.9 28.0-31.9 $\geq 32.0$	1.56 (1.37-1.77) 1.21 (1.12-1.30) 1.00 0.95 (0.88-1.02) 0.97 (0.89-1.06) 1.55 (1.35-1.79) 1.21 (1.12-1.32) 1.00 0.96 (0.89-1.04) 0.99 (0.90-1.09)	Age, METs achieved, blood pressure, race, cardiovascular disease including heart failure, hypertension, type 2 diabetes, dyslipidemia, smoking status, muscle-wasting diseases, alcohol, drug abuse, beta-blockers, calcium-channel blockers, diuretics, angiotensin-converting enzyme inhibitors, angiotensin 2 receptor blockers, aspirin, lipid-

										lowering agents, hypoglycemic agents, year of entry into the study
Hirani V et al, 2014, Australia	Concord Health and Ageing in Men Project	2005-2007 - 2013, 6.7 years follow-up	1705 men, age 70-97 years: 461 deaths	Measured	No	No	BMI	<20 20.0-24.9 25.0-29.9 ≥30	2.10 (1.17-3.79) 1.00 0.69 (0.54-0.89) 0.61 (0.45-0.82)	Age, smoking status, alcohol consumption, myocardial infarction, congestive heart failure, cancer, depressive symptoms, IADL disability, ADL disability, chair stands, white blood cell count, haemoglobin albumin
Yiengprugsawat V et al, 2014, Thailand	Thai Cohort Study	2005-2010, 5 years follow-up	87151 men and women, age 15-87 years: 583 deaths	Self-reported	Metabolic, cardiovascular disorders including diabetes and hypertension	No	BMI, age <35 years  BMI, age 35-65 years	<18.5 18.5-<20.75 20.75-<23.0 23.0-<25.0 25.0-<30.0 ≥30.0  <18.5 18.5-<20.75 20.75-<23.0 23.0-<25.0 25.0-<30.0 ≥30.0	1.15 (0.79-1.68) 1.00 0.98 (0.70-1.36) 1.08 (0.72-1.62) 1.11 (0.71-1.73) 0.63 (0.20-1.20)  1.82 (0.81-4.08) 1.00 1.61 (0.93-2.81) 0.79 (0.41-1.51) 1.28 (0.69-2.35) 2.37 (1.01-5.70)	Age, sex, monthly income, paid work hours, rural-urban residence, self-assessed health at baseline, smoking status, alcohol drinking status, physical activity
Hong ES et al, 2015, Korea	Korean Longitudinal Study on Health and Aging	2005-2006 – 2011, 6 years follow-up	1000 men and women, age ≥65 years: 222 deaths	Measured	No	No	BMI	13.9-21.8 21.8-23.9 23.9-26.0 26.0-35.8	1.00 0.76 (0.53-1.10) 0.63 (0.41-0.96) 0.54 (0.34-0.86)	Age, sex, alcohol, smoking status, exercise
Long G et al, 2015, United Kingdom	Allied Dunbar National Fitness Survey	1990 - 2014, 22.9 years follow-up	1796 men and 2122 women, age 16-96 years: 1175 deaths	Measured	No	No	BMI	14.9-24.9 25.0-29.9 30.0-49.9	1.00 1.10 (0.93-1.31) 1.36 (1.08-1.72)	Age, sex
Suemoto CK et al, 2015, Brazil	The Health, Well-Being and Ageing (SABE) study	2000-2006 – 2010, 6.5 years follow-up	1527 men and women, age ≥75 years: 621 deaths	Measured	Prevalent cancers excluded	No	BMI	18.5-<20.0 20.0-<25.0 25.0-<30.0 ≥30.0	1.51 (1.08-2.10) 1.00 0.84 (0.70-1.02) 0.82 (0.64-1.06)	Age, sex, marital status, years of education, childhood SES, occupation, income, diabetes, heart disease, lung disease, stroke, arthritis, depressive symptoms, alcohol, smoking status, physical activity, cognitive function, activities of daily living, frailty, nutritional status, year of entry into the study

Burman M et al, 2015, Sweden	GERontological Regional Database (GERDA)	2000-2002, 2005-2007 – NA, 5 years follow-up	832 men and women, age 85, 90 and 95 years: NA	Measured	No	No	BMI	<22.2 22.2-24.6 24.7-27.9 ≥28.0	1.00 0.81 (0.64-1.02) 0.63 (0.50-0.80) 0.74 (0.58-0.94)	Age, sex
Kumar A et al, 2015, Mexico	Mexican Health and Aging Study	2001-2012, 11 years follow-up	8415 men and women, age ≥50 years: 1067 deaths	Self-reported	No	First 5 years excluded in sensitivity analyses (Risk estimates not reported)	BMI	<18.5 18.5-<25.0 25.0-<30.0 30.0-<35.0 ≥35.0	1.31 (1.00-1.72) 1.00 0.85 (0.75-0.97) 0.86 (0.72-1.02) 0.92 (0.70-1.22)	Age, sex, marital status, education, smoking status, comorbidities
Qizilbash N et al, 2015, United Kingdom	United Kingdom Clinical Practice Research Datalink	1992-2007 – 2013, 9.1 years follow-up	1958191 men and women, age ≥40 years: 262095 deaths	Measured	Dementia cases excluded	No	BMI	<20 20-24.9 25.0-29.9 30.0-34.9 35.0-39.9 ≥40.0	1.53 (1.51-1.55) 1.00 0.90 (0.89-0.91) 0.97 (0.96-0.98) 1.18 (1.16-1.20) 1.57 (1.53-1.62)	Age, sex
Yi SW et al, 2015, Korea	National Health Insurance Service	2001-2004 – 2013, 10.5 years follow-up	12832637 men and women, age 18-99 years: 697383 deaths  7436748 never smokers: 377503 deaths  1100650 former smokers: 66217 deaths  3657466 current smokers: 219583 deaths	Measured	Exclusions of subjects with known illness in sensitivity analyses (risk estimates not reported)	First 5 years of follow-up excluded in sensitivity analyses	BMI, men, age 18-34 years  BMI, men, age 35-44 years	<16 16-17.4 17.5-18.9 19.0-19.9 20.0-20.9 21.0-21.9 22.0-22.9 23.0-23.9 24.0-24.9 25.0-25.9 26.0-26.9 27.0-27.9 28.0-28.9 29.0-29.9 30.0-31.4 31.5-32.9 33.0-34.9 35.0-50.0 <16 16-17.4 17.5-18.9 19.0-19.9	1.81 (1.19-2.73) 1.69 (1.46-1.95) 1.36 (1.24-1.48) 1.17 (1.08-1.27) 1.11 (1.03-1.20) 1.04 (0.97-1.13) 1.02 (0.95-1.10) 0.94 (0.87-1.02) 0.93 (0.86-1.00) 0.96 (0.88-1.03) 1.00 1.02 (0.93-1.12) 1.08 (0.97-1.20) 1.09 (0.97-1.22) 1.33 (1.18-1.50) 1.65 (1.42-1.91) 1.50 (1.23-1.84) 2.13 (1.71-2.65) 5.26 (4.28-6.46) 2.60 (2.34-2.89) 1.91 (1.80-2.03) 1.55 (1.47-1.64)	Age, smoking status, known pre-existing illness either cured or not

							20.0-20.9	1.45 (1.38-1.52)	
							21.0-21.9	1.28 (1.22-1.34)	
							22.0-22.9	1.14 (1.08-1.19)	
							23.0-23.9	1.03 (0.99-1.08)	
							24.0-24.9	1.00 (0.95-1.04)	
							25.0-25.9	0.97 (0.93-1.02)	
							26.0-26.9	1.00	
							27.0-27.9	1.07 (1.02-1.13)	
							28.0-28.9	1.07 (1.01-1.14)	
							29.0-29.9	1.28 (1.19-1.37)	
							30.0-31.4	1.31 (1.21-1.42)	
							31.5-32.9	1.39 (1.23-1.57)	
							33.0-34.9	1.61 (1.36-1.90)	
							35.0-50.0	2.02 (1.63-2.52)	
						BMI, men, age 45-54 years	<16	5.63 (4.90-6.48)	
							16-17.4	3.36 (3.12-3.61)	
							17.5-18.9	2.39 (2.28-2.50)	
							19.0-19.9	1.92 (1.85-2.01)	
							20.0-20.9	1.68 (1.62-1.74)	
							21.0-21.9	1.42 (1.37-1.48)	
							22.0-22.9	1.24 (1.20-1.28)	
							23.0-23.9	1.12 (1.08-1.16)	
							24.0-24.9	1.05 (1.02-1.09)	
							25.0-25.9	1.01 (0.98-1.05)	
							26.0-26.9	1.00	
							27.0-27.9	1.06 (1.01-1.10)	
							28.0-28.9	1.09 (1.04-1.15)	
							29.0-29.9	1.17 (1.11-1.24)	
							30.0-31.4	1.27 (1.18-1.35)	
							31.5-32.9	1.34 (1.21-1.48)	
							33.0-34.9	1.48 (1.26-1.73)	
							35.0-50.0	1.60 (1.27-2.02)	
						BMI, men, age 55-64 years	<16	4.97 (4.59-5.38)	
							16-17.4	3.15 (3.00-3.29)	
							17.5-18.9	2.21 (2.14-2.28)	
							19.0-19.9	1.81 (1.76-1.87)	
							20.0-20.9	1.61 (1.56-1.66)	
							21.0-21.9	1.39 (1.36-1.43)	
							22.0-22.9	1.25 (1.22-1.29)	
							23.0-23.9	1.13 (1.10-1.16)	
							24.0-24.9	1.05 (1.02-1.08)	
							25.0-25.9	1.02 (0.99-1.05)	
							26.0-26.9	1.00	

							27.0-27.9	1.00 (0.96-1.03)
							28.0-28.9	1.03 (0.99-1.07)
							29.0-29.9	1.08 (1.03-1.14)
							30.0-31.4	1.11 (1.05-1.18)
							31.5-32.9	1.22 (1.11-1.33)
							33.0-34.9	1.31 (1.13-1.51)
							35.0-50.0	1.47 (1.21-1.80)
						BMI, men, age 65-74 years	<16	3.52 (3.33-3.72)
							16-17.4	2.47 (2.39-2.56)
							17.5-18.9	1.87 (1.82-1.92)
							19.0-19.9	1.60 (1.56-1.65)
							20.0-20.9	1.41 (1.37-1.45)
							21.0-21.9	1.31 (1.27-1.34)
							22.0-22.9	1.20 (1.17-1.24)
							23.0-23.9	1.11 (1.08-1.14)
							24.0-24.9	1.04 (1.01-1.06)
							25.0-25.9	0.99 (0.96-1.02)
							26.0-26.9	1.00
							27.0-27.9	0.96 (0.93-1.00)
							28.0-28.9	1.00 (0.96-1.04)
							29.0-29.9	1.07 (1.01-1.13)
							30.0-31.4	1.07 (1.00-1.14)
							31.5-32.9	1.17 (1.05-1.30)
							33.0-34.9	1.31 (1.12-1.52)
							35.0-50.0	1.37 (1.09-1.71)
						BMI, men, age 75-99 years	<16	2.71 (2.54-2.90)
							16-17.4	1.98 (1.89-2.08)
							17.5-18.9	1.62 (1.55-1.69)
							19.0-19.9	1.44 (1.38-1.50)
							20.0-20.9	1.34 (1.29-1.40)
							21.0-21.9	1.23 (1.18-1.29)
							22.0-22.9	1.15 (1.11-1.20)
							23.0-23.9	1.10 (1.05-1.15)
							24.0-24.9	1.03 (0.99-1.08)
							25.0-25.9	1.00 (0.96-1.05)
							26.0-26.9	1.00
							27.0-27.9	0.98 (0.92-1.04)
							28.0-28.9	0.97 (0.90-1.04)
							29.0-29.9	0.89 (0.81-0.98)
							30.0-31.4	0.98 (0.88-1.10)
							31.5-32.9	1.00 (0.84-1.18)
							33.0-34.9	1.09 (0.79-1.50)
							35.0-50.0	1.33 (0.94-1.89)

					BMI, women, age 18-34 years	<16	1.02 (0.69-1.52)	
						16-17.4	1.02 (0.85-1.23)	
						17.5-18.9	1.00 (0.86-1.17)	
						19.0-19.9	1.03 (0.88-1.21)	
						20.0-20.9	0.98 (0.84-1.15)	
						21.0-21.9	1.03 (0.88-1.21)	
						22.0-22.9	0.99 (0.83-1.17)	
						23.0-23.9	0.97 (0.81-1.16)	
						24.0-24.9	1.00	
						25.0-25.9	1.11 (0.89-1.39)	
						26.0-26.9	1.50 (1.19-1.88)	
						27.0-27.9	1.32 (1.01-1.74)	
						28.0-28.9	1.29 (0.93-1.78)	
						29.0-29.9	1.42 (0.98-2.06)	
						30.0-31.4	1.24 (0.84-1.85)	
						31.5-32.9	1.06 (0.62-1.83)	
						33.0-34.9	1.88 (1.13-3.13)	
						35.0-50.0	2.36 (1.42-3.92)	
					BMI, women, age 35-44 years	<16	4.87 (3.68-6.45)	
						16-17.4	1.56 (1.32-1.85)	
						17.5-18.9	1.07 (0.97-1.19)	
						19.0-19.9	0.93 (0.85-1.02)	
						20.0-20.9	0.92 (0.85-1.00)	
						21.0-21.9	0.94 (0.87-1.02)	
						22.0-22.9	0.94 (0.87-1.02)	
						23.0-23.9	0.92 (0.85-1.00)	
						24.0-24.9	1.00	
						25.0-25.9	1.02 (0.93-1.12)	
						26.0-26.9	1.09 (0.99-1.21)	
						27.0-27.9	1.13 (1.01-1.26)	
						28.0-28.9	1.18 (1.04-1.34)	
						29.0-29.9	1.28 (1.10-1.48)	
						30.0-31.4	1.40 (1.19-1.64)	
						31.5-32.9	1.36 (1.10-1.67)	
						33.0-34.9	1.42 (1.08-1.88)	
						35.0-50.0	1.66 (1.21-2.28)	
					BMI, women, age 45-54 years	<16	4.85 (3.79-6.20)	
						16-17.4	2.20 (1.90-2.54)	
						17.5-18.9	1.55 (1.42-1.68)	
						19.0-19.9	1.18 (1.10-1.28)	
						20.0-20.9	1.14 (1.07-1.21)	
						21.0-21.9	1.02 (0.97-1.08)	
						22.0-22.9	0.97 (0.92-1.03)	

							23.0-23.9	1.00 (0.95-1.05)	
							24.0-24.9	1.00	
							25.0-25.9	1.01 (0.96-1.07)	
							26.0-26.9	1.01 (0.95-1.07)	
							27.0-27.9	1.08 (1.01-1.15)	
							28.0-28.9	1.13 (1.05-1.22)	
							29.0-29.9	1.22 (1.12-1.33)	
							30.0-31.4	1.26 (1.15-1.38)	
							31.5-32.9	1.37 (1.22-1.54)	
							33.0-34.9	1.43 (1.22-1.69)	
							35.0-50.0	1.73 (1.43-2.09)	
						BMI, women, age 55-64 years	<16	3.89 (3.38-4.49)	
							16-17.4	2.33 (2.14-2.54)	
							17.5-18.9	1.81 (1.71-1.91)	
							19.0-19.9	1.44 (1.37-1.52)	
							20.0-20.9	1.26 (1.20-1.32)	
							21.0-21.9	1.16 (1.11-1.20)	
							22.0-22.9	1.07 (1.03-1.11)	
							23.0-23.9	1.01 (0.97-1.05)	
							24.0-24.9	1.00	
							25.0-25.9	0.99 (0.95-1.03)	
							26.0-26.9	1.00 (0.96-1.04)	
							27.0-27.9	1.00 (0.96-1.05)	
							28.0-28.9	1.08 (1.03-1.13)	
							29.0-29.9	1.07 (1.01-1.13)	
							30.0-31.4	1.20 (1.13-1.28)	
							31.5-32.9	1.37 (1.27-1.47)	
							33.0-34.9	1.33 (1.19-1.48)	
							35.0-50.0	1.72 (1.52-1.95)	
						BMI, women, age 65-74 years	<16	2.53 (2.35-2.72)	
							16-17.4	1.87 (1.78-1.96)	
							17.5-18.9	1.58 (1.53-1.64)	
							19.0-19.9	1.39 (1.34-1.44)	
							20.0-20.9	1.25 (1.21-1.29)	
							21.0-21.9	1.17 (1.14-1.21)	
							22.0-22.9	1.06 (1.03-1.09)	
							23.0-23.9	1.04 (1.01-1.07)	
							24.0-24.9	1.00	
							25.0-25.9	0.99 (0.96-1.02)	
							26.0-26.9	0.98 (0.95-1.01)	
							27.0-27.9	0.99 (0.96-1.03)	
							28.0-28.9	1.01 (0.98-1.05)	
							29.0-29.9	1.07 (1.02-1.11)	





						BMI, men, age 18-44 years, current smokers	29.5-30.9 31.0-50.0 <17.5 17.5-18.9 19.0-20.4 20.5-21.9 22.0-23.4 23.5-24.9 25.0-26.4 26.5-27.9 28.0-29.4 29.5-30.9 31.0-50.0 <17.5 17.5-18.9 19.0-20.4 20.5-21.9 22.0-23.4 23.5-24.9 25.0-26.4 26.5-27.9 28.0-29.4 29.5-30.9 31.0-50.0 <17.5 17.5-18.9 19.0-20.4 20.5-21.9 22.0-23.4 23.5-24.9 25.0-26.4 26.5-27.9 28.0-29.4 29.5-30.9 31.0-50.0 <18.5 18.5-21.0 21.0-23.0 23.0-25.0 25.0-27.5 27.5-30.0 30.0-50.0 <18.5	1.08 (0.96-1.22) 1.21 (1.05-1.41) 2.32 (2.10-2.55) 1.86 (1.76-1.96) 1.55 (1.48-1.62) 1.35 (1.30-1.41) 1.16 (1.11-1.20) 1.04 (1.00-1.08) 1.00 1.09 (1.04-1.15) 1.15 (1.09-1.21) 1.37 (1.27-1.48) 1.55 (1.43-1.68) 3.21 (3.07-3.35) 2.20 (2.13-2.27) 1.77 (1.72-1.81) 1.45 (1.42-1.49) 1.20 (1.18-1.23) 1.05 (1.02-1.07) 1.00 1.00 (0.97-1.03) 0.99 (0.95-1.03) 1.12 (1.06-1.19) 1.19 (1.10-1.28) 2.13 (2.05-2.21) 1.63 (1.57-1.68) 1.41 (1.37-1.46) 1.24 (1.21-1.28) 1.14 (1.11-1.18) 1.06 (1.02-1.09) 1.00 0.99 (0.95-1.04) 1.00 (0.94-1.07) 1.11 (1.01-1.22) 1.21 (1.07-1.37) 1.15 (1.06-1.24) 0.98 (0.93-1.03) 0.99 (0.94-1.05) 1.00 1.15 (1.08-1.22) 1.30 (1.19-1.41) 1.56 (1.40-1.74) 2.13 (2.03-2.23)
						BMI, men, age 45-64 years, current smokers		
						BMI, men, age 65-99 years, current smokers		
						BMI, women, age 18-44 years, never smokers		
						BMI, women, age 45-64		

						years, never smokers	18.5-21.0 21.0-23.0 23.0-25.0 25.0-27.5 27.5-30.0 30.0-50.0  BMI, women, age 65-99 years, never smokers	1.30 (1.26-1.34) 1.07 (1.04-1.10) 1.00 1.00 (0.98-1.03) 1.10 (1.07-1.13) 1.32 (1.27-1.37)  <18.5 18.5-21.0 21.0-23.0 23.0-25.0 25.0-27.5 27.5-30.0 30.0-50.0  BMI, women, age 18-44 years, former smokers	0.94 (0.62-1.43) 0.75 (0.55-1.02) 0.69 (0.50-0.95) 1.00 0.74 (0.49-1.11) 0.59 (0.31-1.15) 0.99 (0.51-1.93)  <18.5 18.5-21.0 21.0-23.0 23.0-25.0 25.0-27.5 27.5-30.0 30.0-50.0  BMI, women, age 45-64 years, former smokers	1.70 (1.13-2.55) 1.41 (1.12-1.77) 0.90 (0.73-1.11) 1.00 1.05 (0.86-1.27) 0.86 (0.66-1.11) 1.21 (0.88-1.67)  <18.5 18.5-21.0 21.0-23.0 23.0-25.0 25.0-27.5 27.5-30.0 30.0-50.0  BMI, women, age 65-99 years, former smokers	1.66 (1.45-1.89) 1.37 (1.24-1.53) 1.03 (0.92-1.14) 1.00 0.99 (0.89-1.11) 0.97 (0.84-1.13) 1.18 (0.97-1.44)  <18.5 18.5-21.0 21.0-23.0 23.0-25.0 25.0-27.5 27.5-30.0 30.0-50.0  BMI, women, age 18-44 years, current smokers	1.32 (1.00-1.75) 1.12 (0.91-1.39) 1.21 (0.98-1.49) 1.00 1.12 (0.86-1.45) 1.55 (1.14-2.10) 1.19 (0.79-1.80)  <18.5 18.5-21.0	1.97 (1.71-2.28) 1.26 (1.13-1.40)
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Lu JL et al, 2015, USA	Racial and Cardiovascular Risk Anomalies in Chronic Kidney Disease study	2004-2006 – 2013, 6.8 years follow-up	3376187 men and women, mean age 60 years: 672341 deaths	Measured	No	No	BMI, women, age 65-99 years, current smokers	21.0-23.0 23.0-25.0 25.0-27.5 27.5-30.0 30.0-50.0 <18.5 18.5-21.0 21.0-23.0 23.0-25.0 25.0-27.5 27.5-30.0 30.0-50.0	1.05 (0.95-1.16) 1.00 0.89 (0.80-0.98) 0.89 (0.78-1.01) 1.13 (0.97-1.32) 1.48 (1.39-1.56) 1.18 (1.12-1.24) 1.03 (0.98-1.09) 1.00 0.94 (0.88-1.00) 0.98 (0.90-1.07) 0.88 (0.77-1.01)	Sex, Index eGFR, race, marital status, income, Charlson Comorbidity Index, cerebrovascular disease, congestive heart failure, peripheral artery disease, malignancies, liver disease, rheumatoid disease, lung disease, Aids, depression, cardiovascular disease, statin use, angiotensin converting enzyme inhibitor, anti-hypertensive use

								20-<25 25-<30 30-<35 35-<40 ≥40	17.21 (14.96-19.80) 13.68 (11.89-15.74) 12.74 (11.06-14.67) 13.30 (11.50-15.38) 15.33 (13.02-18.07)	
Chung WS et al, 2015, Korea	Taiwan Longitudinal Study on Aging (Health and Living Status of the Elderly in Taiwan)	1996-2007, 10.2 years follow-up	4145 men and women, age ≥50 years: 1123 deaths	Self-reported	No	3 first years of follow-up excluded	BMI	<18.5 18.5-<24.0 24.0-<27.0 27.0-28.0 28.0-29.0 ≥29.0	1.35 (1.11-1.64) 1.00 0.90 (0.77-1.04) 0.56 (0.39-0.80) 0.89 (0.61-1.30) 1.00 (0.75-1.33)	Age, sex, education, ethnicity, smoking status, spouse status, alcohol drinking status
Hong S et al, 2015, Korea	Kangwha Cohort Study	1985-2008, 23.8 years follow-up	6166 men and women, age ≥55 years: 2174/2372 deaths	Measured	Chronic diseases and cancers excluded in sensitivity analyses (risk estimates not reported)	First 4.8 years of follow-up excluded in sensitivity analyses	BMI, men  BMI, women	<16.0 16.0-18.4 18.5-20.9 21.0-22.9 23.0-24.9 25.0-27.4 ≥27.5 <16.0 16.0-18.4 18.5-20.9 21.0-22.9 23.0-24.9 25.0-27.4 ≥27.5	2.35 (1.57-3.51) 1.77 (1.49-2.11) 1.26 (1.11-1.43) 1.01 (0.89-1.15) 1.00 1.06 (0.88-1.27) 1.47 (1.12-1.92) 2.12 (1.42-3.17) 1.38 (1.17-1.62) 1.14 (1.01-1.29) 1.04 (0.92-1.18) 1.00 0.89 (0.76-1.03) 1.14 (0.96-1.35)	Age, smoking status, alcohol intake, fruit and vegetables, occupation, education, health insurance status, known diseases, hypertension
Ponce-Garcia I et al, 2015, Spain	Castilla-La Mancha	1992-1994 – 2006, 10.6 years follow-up	1248 men and women, age ≥18 years: 135 deaths	Measured	No	No	BMI	18.5-29.9 30.0-34.9 35.0-39.9	1.00 0.89 (0.57-1.39) 1.94 (1.11-3.42)	Age, sex, diabetes, hypertension, smoking status, personal history of CVD, hypercholesterolemia, HDL-cholesterol/triglycerides ratio
Nakade M et al, 2015, Japan	The Aichi Gerontological Evaluation (AGES) Cohort Study	2003 – 2008, 3.8 years follow-up	14931 men and women, age ≥65 years: 857 deaths	Self-reported	No	First year of follow-up excluded	BMI, men  BMI, women	<18.5 18.5-22.9 23.0-24.9 ≥25.0 <18.5 18.5-22.9 23.0-24.9 ≥25.0	1.99 (1.49-2.67) 1.20 (0.96-1.49) 1.00 1.15 (0.88-1.51) 1.59 (1.07-2.35) 0.90 (0.65-1.23) 1.00 1.02 (0.71-1.47)	Age, marital status, self-rated health, present illness
Dankner R et al, 2015, Israel	Israel GOH Study	1969-1971 – 2012, 40 years follow-up	5710 men and women, age 28-59 years: 2932 deaths	Measured	No	No	BMI, all men	<20.0 20.0-24.9 25.0-26.9 27.0-29.9	1.22 (1.03-1.45) 1.00 0.95 (0.80-1.13) 1.01 (0.85-1.20)	Age, smoking status, blood pressure

							BMI, all women	$\geq 30.0$ $<20.0$ 20.0-24.9 25.0-26.9 27.0-29.9 $\geq 30.0$	1.22 (1.03-1.44) 1.01 (0.82-1.23) 1.00 1.04 (0.86-1.26) 1.12 (0.93-1.35) 1.21 (1.00-1.45)	
Ganna A et al, 2015, United Kingdom	UK Biobank Study	2007-2010 – 2014, 4.9 years follow-up	498103 men and women, age 37-73 years: 5224/3308 deaths	Measured	Charlson comorbidity index >0 excluded in sensitivity analyses	No	BMI, men  BMI, healthy men  BMI, women  BMI, healthy women	12.8-23.6 23.6-25.8 25.8-28.0 28.0-31.2 31.2-68.4 12.8-23.6 23.6-25.8 25.8-28.0 28.0-31.2 31.2-68.4 12.8-23.6 23.6-25.8 25.8-28.0 28.0-31.2 31.2-68.4 12.8-23.6 23.6-25.8 25.8-28.0 28.0-31.2 31.2-68.4	1.2 (1.1-1.4) 0.9 (0.9-1.0) 0.9 (0.8-1.0) 1.0 1.4 (1.3-1.5) 1.2 (1.0-1.3) 1.0 (0.8-1.1) 1.0 (0.8-1.1) 1.0 1.3 (1.1-1.5) 1.0 0.9 (0.8-1.0) 0.9 (0.8-1.0) 0.9 (0.8-1.0) 1.1 (1.0-1.3) 1.0 0.9 (0.8-1.1) 1.0 (0.8-1.1) 0.9 (0.8-1.1) 1.2 (1.0-1.4)	Age
Graf CE et al, 2015, Switzerland	Geneva University Hospitals	1990-2011, 6.2 years follow-up	3181 men and women, age $\geq 65$ years: 1007 deaths	Measured	No	No	BMI, men  BMI, women	<18.5 18.5-24.9 25.0-29.9 30.0-34.9 $\geq 35.0$ <18.5 18.5-24.9 25.0-29.9 30.0-34.9 $\geq 35.0$	1.36 (1.11-1.68) 1.00 0.76 (0.66-0.88) 0.53 (0.40-0.70) 0.76 (0.53-1.08) 1.37 (1.11-1.69) 1.00 0.89 (0.74-1.07) 1.02 (0.80-1.30) 0.86 (0.61-1.21)	Age, smoking status, type of subject (ambulatory versus hospitalized), calendar time
Mirbolouk M et al, 2015, Iran	Tehran Lipid and Glucose Study	1999-2001 – 2010, 9.74 years	1199 men and women, age $\geq 65$ years: 239 deaths	Measured	No	No	BMI, without metabolic syndrome  BMI, with metabolic syndrome	<25 25-<30 $\geq 30$ <25 25-<30 $\geq 30$	1.41 (0.91-2.23) 1.00 1.33 (0.51-3.47) 1.84 (1.18-3.09) 1.46 (0.93-2.34) 1.59 (0.91-2.56)	Age, sex, smoking status, total cholesterol, lipid lowering drugs

Cao B et al, 2015, USA	US Health and Retirement Study	1992/1998 – NA, NA	8678 men and women, age $\geq 50$ years: NA	Self-reported	No	No	BMI, never smokers	<18.5 18.5-<25.0 25.0-<30.0 30.0-<35.0 $\geq 35.0$	1.85 (1.08-3.03) 1.00 0.88 (0.76-1.02) 1.01 (0.89-1.15) 1.89 (1.54-2.34)	BMI, ever smokers	<18.5 18.5-<25.0 25.0-<30.0 30.0-<35.0 $\geq 35.0$	4.23 (2.02-8.55) 1.00 0.96 (0.76-1.21) 1.09 (0.89-1.34) 1.74 (1.29-2.35)	Age, sex, race/ethnicity, education, household income, physical activity, previous chronic diseases (diabetes, cancer, lung disease, heart problem, stroke), self-reported health
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ADL; activity of daily living, BMI; body mass index, CAD; coronary artery disease, CHD; coronary heart disease, CVD; cardiovascular disease, COPD; chronic obstructive pulmonary disease, CRP; C-reactive protein, DM; diabetes mellitus, ECG; electrocardiography, eGFR; estimated glomerular filtration rate, E%; energy percentage, FEV1; forced expiratory volume in 1 second, FH; family history, HDL; high-density lipoprotein, HRT; hormone replacement therapy, IADL; instrumental activities of daily living, IHD; ischemic heart disease, IL-6; interleukin-6, kg; kilogram, LDL; low-density lipoprotein, MET; metabolic equivalent tasks, metsyn; metabolic syndrome, MI; myocardial infarction, MMSE; mini-mental state examination, NA: not available, OC use; oral contraceptive use, PAD; peripheral artery disease, PH; parental history, SBP; systolic blood pressure, SES; socio-economic status, SFA; saturated fatty acids, TG; triglycerides, TNF-alpha; tumor necrosis factor alpha, WHI; Women's Health Initiative, WHR; waist-to-hip ratio

Table C: Subgroup analyses of BMI and all cause mortality in never smokers, per 5 units increase in BMI

	BMI					
	n	RR (95% CI)	I <sup>2</sup> (%)	P <sub>h</sub> <sup>1</sup>	P <sub>h</sub> <sup>2</sup>	
All studies	44	1.18 (1.15 to 1.21)	95.5	<0.0001		
Sex						
Men	30	1.21 (1.16 to 1.27)	92.7	<0.0001	0.12/ 0.40	
Women	28	1.17 (1.14 to 1.21)	94.9	<0.0001		
Men and women	7	1.11 (1.03 to 1.20)	91.9	<0.0001		
Assessment of weight/height						
Measured	23	1.14 (1.07 to 1.20)	95.5	<0.0001	0.14	
Self-reported	20	1.22 (1.19 to 1.25)	91.4	<0.0001		
Measured and self-reported	1	1.32 (1.07 to 1.62)	NC	NC		
Unclear	0					
Duration of follow-up						
<5 years follow-up	1	1.21 (1.14 to 1.28)	NC	NC	0.02	
5-<10	11	1.11 (0.94 to 1.30)	96.6	<0.0001		
10-<15	18	1.18 (1.14 to 1.22)	94.7	<0.0001		
15-<20	4	1.24 (1.09 to 1.40)	86.6	<0.0001		
20-<25	2	1.30 (1.19 to 1.42)	92.8	<0.0001		
≥25	7	1.25 (1.20 to 1.30)	61.5	0.02		
Geographic location						
Europe	11	1.18 (1.11 to 1.25)	81.9	<0.0001	0.90	
North-America	20	1.21 (1.17 to 1.24)	92.3	<0.0001		
Australia	2	1.19 (1.11 to 1.27)	18.0	0.27		
Asia	11	1.17 (1.05 to 1.29)	96.8	<0.0001		
Number of deaths						
<500	11	1.14 (1.01 to 1.28)	77.7	<0.0001	0.70	
500-<1000	5	1.24 (1.13 to 1.36)	58.1	0.05		
1000-<5000	15	1.19 (1.08 to 1.31)	97.2	<0.0001		
5000-<10000	3	1.22 (1.13 to 1.33)	94.6	<0.0001		
≥10000	6	1.18 (1.13 to 1.22)	98.2	<0.0001		
Study quality						
0-3	0				0.73	
4-6	13	1.20 (1.14 to 1.26)	86.9	<0.0001		
7-9	31	1.17 (1.13 to 1.21)	96.3	<0.0001		
Adjustment for confounders						
Age	Yes	43	1.18 (1.15 to 1.21)	94.6	<0.0001	0.65
	No	1	1.11 (1.10 to 1.13)			
Education	Yes	16	1.16 (1.10 to 1.23)	97.1	<0.0001	0.62
	No	28	1.19 (1.15 to 1.23)	93.2	<0.0001	
Alcohol	Yes	22	1.17 (1.14 to 1.21)	91.0	<0.0001	0.70
	No	21	1.19 (1.13 to 1.25)	96.8	<0.0001	
Physical activity	Yes	16	1.21 (1.17 to 1.25)	88.3	<0.0001	0.30
	No	28	1.16 (1.11 to 1.21)	96.4	<0.0001	
Height	Yes	2	1.26 (1.22 to 1.31)	49.5	0.16	0.46
	No	42	1.17 (1.14 to 1.21)	95.4	<0.0001	
Waist circumference or waist-to-hip ratio	Yes	0				NC
	No	44	1.18 (1.15 to 1.21)	95.5	<0.0001	
Dietary pattern	Yes	3	1.17 (1.13 to 1.22)	0	0.84	0.93
	No	41	1.18 (1.15 to 1.21)	95.6	<0.0001	
Fat intake	Yes	3	1.19 (1.11 to 1.28)	87.4	<0.0001	0.66
	No	41	1.18 (1.14 to 1.22)	95.5	<0.0001	
Fruit, vegetables	Yes	2	1.29 (1.08 to 1.52)	72.4	0.06	0.39
	No	42	1.18 (1.14 to 1.22)	95.4	<0.0001	

Adjustment for potential intermediates							
Diabetes	Yes	2	0.99 (0.76 to 1.29)	89.6	0.002	0.10	
	No	42	1.19 (1.15 to 1.22)	95.4	<0.0001		
Hypertension	Yes	2	0.99 (0.76 to 1.29)	89.6	0.002	0.10	
	No	42	1.19 (1.15 to 1.22)	95.4	<0.0001		
Cholesterol	Yes	1	0.85 (0.72 to 1.01)	NC	NC	0.04	
	No	43	1.18 (1.15 to 1.22)	95.3	<0.0001		
Studies with adjustment for age, smoking, alcohol, and physical activity and without adjustment for prevalent disease or intermediate factors							
Adjustment for main confounders, but not for intermediates	Yes	9	1.23 (1.16 to 1.31)	90.2	<0.0001	0.35	
	No	35	1.16 (1.13 to 1.20)	95.7	<0.0001		
Studies with adjustment for main confounders, but not intermediates, stratified by duration of follow-up	<10 years	Yes	3	1.29 (1.20 to 1.38)	30.3	0.24	0.10
		No	9	1.05 (0.89 to 1.23)	95.5	<0.0001	
	10- <15	Yes	5	1.17 (1.08 to 1.27)	91.5	<0.0001	0.93
		No	13	1.18 (1.13 to 1.23)	95.5	<0.0001	
	≥15	Yes	1	1.36 (1.13 to 1.41)	NC	NC	0.22
		No	12	1.24 (1.19 to 1.28)	87.6	<0.0001	

n=number of risk estimates, the number of risk estimates does not always add up to the total because of missing information in some studies

RR=relative risk, CI=confidence interval

$P_h^1$ =p for heterogeneity within each subgroup

$P_h^2$ =p for heterogeneity between subgroups using meta-regression analyses

Table D: Body mass index and all cause mortality, all participants and never smokers, stratified by sex, nonlinear dose-response

	Never smokers, all studies	Never smokers, men	Never smokers, women	Never smokers, men and women	All participants, all studies	All participants, men	All participants, women	All participants, men and women
n	44	29	28	7	198	103	92	74
BMI	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)
15	2.01 (1.80 to 2.24)	2.65 (2.28 to 3.08)	1.72 (1.49 to 1.98)		2.24 (2.15 to 2.34)	2.50 (2.34 to 2.67)	2.05 (1.89 to 2.22)	
16	1.66 (1.51 to 1.83)	2.05 (1.80 to 2.33)	1.48 (1.31 to 1.67)	1.40 (1.21 to 1.62) <sup>1</sup>	1.83 (1.77 to 1.91)	1.98 (1.87 to 2.10)	1.71 (1.60 to 1.84)	1.59 (1.54 to 1.65) <sup>1</sup>
17.5	1.35 (1.25 to 1.45)	1.54 (1.39 to 1.70)	1.25 (1.13 to 1.37)	1.30 (1.15 to 1.47)	1.47 (1.43 to 1.51)	1.54 (1.47 to 1.61)	1.41 (1.33 to 1.49)	1.45 (1.41 to 1.50)
20	1.10 (1.05 to 1.14)	1.15 (1.09 to 1.21)	1.06 (1.01 to 1.12)	1.09 (1.03 to 1.16)	1.15 (1.13 to 1.17)	1.17 (1.14 to 1.20)	1.13 (1.10 to 1.17)	1.16 (1.14 to 1.18)
22	1.01 (1.00 to 1.03)	1.02 (1.01 to 1.04)	1.01 (0.99 to 1.02)	1.02 (1.00 to 1.04)	1.03 (1.02 to 1.04)	1.03 (1.02 to 1.04)	1.03 (1.02 to 1.04)	1.04 (1.03 to 1.04)
23	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
24	1.00 (0.98 to 1.01)	0.99 (0.97 to 1.01)	1.00 (0.99 to 1.02)	0.99 (0.97 to 1.01)	0.98 (0.97 to 0.99)	0.98 (0.97 to 0.99)	0.98 (0.97 to 0.99)	0.97 (0.96 to 0.98)
25	1.01 (0.98 to 1.03)	1.00 (0.96 to 1.03)	1.02 (0.98 to 1.05)	0.99 (0.96 to 1.03)	0.97 (0.96 to 0.98)	0.97 (0.96 to 0.99)	0.97 (0.95 to 0.99)	0.96 (0.95 to 0.97)
27.5	1.07 (1.01 to 1.14)	1.07 (0.99 to 1.16)	1.09 (1.01 to 1.18)	1.03 (0.95 to 1.12)	0.98 (0.96 to 1.01)	1.00 (0.96 to 1.03)	0.99 (0.94 to 1.03)	0.96 (0.93 to 0.98)
30	1.20 (1.09 to 1.32)	1.23 (1.08 to 1.39)	1.21 (1.07 to 1.37)	1.12 (0.98 to 1.27)	1.04 (1.00 to 1.08)	1.08 (1.02 to 1.14)	1.04 (0.97 to 1.12)	1.00 (0.97 to 1.04)
32.5	1.39 (1.22 to 1.58)	1.48 (1.24 to 1.75)	1.39 (1.18 to 1.64)	1.25 (1.05 to 1.49)	1.14 (1.09 to 1.20)	1.21 (1.12 to 1.31)	1.13 (1.03 to 1.25)	1.09 (1.04 to 1.15)
35	1.65 (1.40 to 1.94)	1.85 (1.49 to 2.30)	1.63 (1.32 to 2.01)	1.44 (1.15 to 1.80)	1.29 (1.21 to 1.37)	1.41 (1.28 to 1.55)	1.26 (1.12 to 1.42)	1.24 (1.16 to 1.31)
37.5	2.02 (1.66 to 2.46)	2.39 (1.84 to 3.11)	1.96 (1.52 to 2.53)	1.69 (1.29 to 2.22)	1.49 (1.37 to 1.61)	1.68 (1.49 to 1.89)	1.44 (1.24 to 1.66)	1.44 (1.34 to 1.55)
40	2.50 (1.98 to 3.15)	3.16 (2.32 to 4.30)	2.38 (1.77 to 3.21)	2.03 (1.47 to 2.80)	1.74 (1.59 to 1.91)	2.03 (1.77 to 2.34)	1.66 (1.40 to 1.97)	1.72 (1.58 to 1.88)
42.5	3.16 (2.42 to 4.12)	4.26 (2.99 to 6.07)	2.93 (2.09 to 4.12)	2.47 (1.70 to 3.59)	2.07 (1.86 to 2.30)	2.52 (2.15 to 2.95)	1.94 (1.59 to 2.35)	2.10 (1.90 to 2.32)
45	4.02 (2.98 to 5.43)	5.84 (3.92 to 8.71)	3.66 (2.49 to 5.39)	3.05 (1.99 to 4.68)	2.49 (2.22 to 2.81)	3.16 (2.64 to 3.78)	2.29 (1.84 to 2.85)	2.62 (2.34 to 2.93)

<sup>1</sup> Lowest value was a BMI of 16.75

Table E: Body mass index and all cause mortality in never smokers, stratified by duration of follow-up, nonlinear dose-response

	All	<10 years	10-15 years	15-20 years	20-25 years	$\geq 25$ years	$\geq 20$ years
n	44	9	15	4	2	8	10
BMI	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)
15	2.01 (1.80 to 2.24)	1.63 (1.32 to 2.01)					
16	1.66 (1.51 to 1.83)	1.43 (1.21 to 1.70)	1.92 (1.68 to 2.19) <sup>1</sup>	1.73 (1.29 to 2.31) <sup>2</sup>	1.22 (0.77 to 1.95)	1.10 (0.99 to 1.23) <sup>3</sup>	1.16 (1.04 to 1.30)
17.5	1.35 (1.25 to 1.45)	1.24 (1.10 to 1.41)	1.54 (1.38 to 1.71)	1.44 (1.16 to 1.81)	1.09 (0.76 to 1.58)	1.06 (0.96 to 1.16)	1.06 (0.97 to 1.16)
20	1.10 (1.05 to 1.14)	1.07 (1.00 to 1.14)	1.15 (1.09 to 1.22)	1.04 (0.97 to 1.11)	1.00 (0.82 to 1.21)	0.99 (0.94 to 1.04)	0.99 (0.94 to 1.03)
22	1.01 (1.00 to 1.03)	1.01 (0.99 to 1.03)	1.03 (1.01 to 1.05)	0.99 (0.97 to 1.00)	0.99 (0.93 to 1.05)	0.99 (0.97 to 1.00)	0.99 (0.97 to 1.00)
23	1.00	1.00	1.00	1.00	1.00	1.00	1.00
24	1.00 (0.98 to 1.01)	1.00 (0.98 to 1.02)	0.99 (0.97 to 1.01)	1.03 (1.02 to 1.04)	1.02 (0.96 to 1.10)	1.02 (1.01 to 1.04)	1.02 (1.01 to 1.04)
25	1.01 (0.98 to 1.03)	1.01 (0.97 to 1.05)	0.99 (0.95 to 1.03)	1.08 (1.07 to 1.09)	1.06 (0.92 to 1.21)	1.06 (1.02 to 1.09)	1.06 (1.02 to 1.09)
27.5	1.07 (1.01 to 1.14)	1.06 (0.98 to 1.15)	1.04 (0.96 to 1.14)	1.26 (1.25 to 1.27)	1.17 (0.87 to 1.58)	1.17 (1.08 to 1.26)	1.17 (1.09 to 1.26)
30	1.20 (1.09 to 1.32)	1.16 (1.02 to 1.32)	1.17 (1.02 to 1.34)	1.51 (1.50 to 1.52)	1.35 (0.86 to 2.13)	1.33 (1.18 to 1.50)	1.33 (1.19 to 1.49)
32.5	1.39 (1.22 to 1.58)	1.31 (1.10 to 1.56)	1.37 (1.14 to 1.64)	1.84 (1.80 to 1.88)	1.60 (0.86 to 2.96)	1.55 (1.32 to 1.83)	1.55 (1.34 to 1.81)
35	1.65 (1.40 to 1.94)	1.52 (1.21 to 1.91)	1.66 (1.32 to 2.09)	2.23 (2.16 to 2.32)	1.93 (0.89 to 4.20)	1.85 (1.51 to 2.26)	1.85 (1.53 to 2.23)
37.5	2.02 (1.66 to 2.46)	1.80 (1.36 to 2.38)	2.07 (1.57 to 2.74)	2.71 (2.59 to 2.82)	2.37 (0.92 to 6.06)	2.23 (1.74 to 2.84)	2.23 (1.77 to 2.80)
40	2.50 (1.98 to 3.15)	2.17 (1.56 to 3.03)	2.66 (1.92 to 3.68)	3.26 (3.12 to 3.41)	2.96 (0.98 to 8.94)	2.71 (2.03 to 3.62)	2.73 (2.08 to 3.57)
42.5	3.16 (2.42 to 4.12)	2.66 (1.80 to 3.93)	3.45 (2.38 to 5.01)	3.89 (3.74 to 4.04)	3.72 (1.05 to 13.12)	3.34 (2.40 to 4.64)	3.36 (2.47 to 4.58)
45	4.02 (2.98 to 5.43)	3.30 (2.10 to 5.18)	4.58 (3.01 to 6.99)	4.60 (4.48 to 4.73)	4.73 (1.13 to 19.77)	4.16 (2.86 to 6.05)	4.18 (2.95 to 5.92)

<sup>1</sup> Lowest value was a BMI of 16.3

<sup>2</sup> Lowest value was a BMI of 16.7

<sup>3</sup> Lowest value was a BMI of 16.75

Because there was only one study with a duration <5 years the categories <5 and 5-<10 years were collapsed and the same was done for the categories of 20-<25 and  $\geq$ 25 years of follow-up. *n*=number of risk estimates, the number of risk estimates does not add up to the total because some studies were excluded because the model did not converge, and one because the duration of follow-up was not reported.

Table F: Subgroup analyses of BMI and all cause mortality in all participants, per 5 units increase in BMI

	<b>BMI</b>					
	<i>n</i>	RR (95% CI)	<i>I</i> <sup>2</sup> (%)	<i>P</i> <sub>h</sub> <sup>1</sup>	<i>P</i> <sub>h</sub> <sup>2</sup>	
All studies	198	1.05 (1.04 to 1.07)	97.1	<0.0001		
Sex						
Men	101	1.07 (1.05 to 1.09)	93.0	<0.0001	0.01/0.47	
Women	91	1.09 (1.08 to 1.11)	92.2	<0.0001		
Men and women	76	1.00 (0.97 to 1.03)	96.1	<0.0001		
Assessment of weight/height						
Measured	115	1.05 (1.03 to 1.07)	96.4	<0.0001	0.09	
Self-reported	60	1.08 (1.06 to 1.10)	94.0	<0.0001		
Measured and self-reported	4	1.07 (0.97 to 1.17)	93.2	<0.0001		
Unclear	19	0.97 (0.90 to 1.05)	95.3	<0.0001		
Duration of follow-up						
<5 years follow-up	15	0.90 (0.83 to 0.97)	90.1	<0.0001	<0.0001	
5-<10	53	1.00 (0.96 to 1.04)	97.2	<0.0001		
10-<15	66	1.07 (1.05 to 1.08)	91.8	<0.0001		
15-<20	27	1.09 (1.05 to 1.13)	87.9	<0.0001		
20-<25	15	1.12 (1.08 to 1.17)	91.7	<0.0001		
≥25	22	1.15 (1.11 to 1.19)	90.0	<0.0001		
Geographic location						
Europe	69	1.07 (1.04 to 1.09)	97.2	<0.0001	0.04	
North America	67	1.07 (1.05 to 1.10)	98.1	<0.0001		
South America	3	0.92 (0.88 to 0.97)	0	0.55		
Australia	9	0.99 (0.91 to 1.07)	74.9	<0.0001		
Asia	49	1.01 (0.97 to 1.05)	92.6	<0.0001		
Pacific	1	0.88 (0.79 to 1.00)				
Number of cases						
<500	41	0.95 (0.90 to 1.01)	74.3	<0.0001	<0.0001	
500-<1000	39	1.04 (1.00 to 1.09)	84.3	<0.0001		
1000-<5000	74	1.05 (1.03 to 1.08)	92.6	<0.0001		
5000-<10000	16	1.08 (1.04 to 1.12)	94.1	<0.0001		
10000-<20000	15	1.13 (1.08 to 1.18)	97.1	<0.0001		
≥20000	10	1.11 (1.06 to 1.17)	99.8	<0.0001		
Study quality						
0-3	0				0.03	
4-6	66	1.02 (0.99 to 1.04)	97.7	<0.0001		
7-9	132	1.07 (1.06 to 1.09)	94.1	<0.0001		
Adjustment for confounders						
Age	Yes	186	1.06 (1.04 to 1.07)	96.2	<0.0001	0.17
	No	12	0.98 (0.88 to 1.09)	95.1	<0.0001	
Education	Yes	74	1.05 (1.03 to 1.06)	94.7	<0.0001	0.51
	No	124	1.06 (1.04 to 1.08)	97.6	<0.0001	
Socio-economic status	Yes	14	1.05 (0.95 to 1.16)	96.4	<0.0001	0.99
	No	184	1.06 (1.04 to 1.07)	96.2	<0.0001	
Alcohol	Yes	78	1.05 (1.03 to 1.07)	94.7	<0.0001	0.95
	No	120	1.05 (1.03 to 1.07)	97.7	<0.0001	
Smoking status	Yes	150	1.06 (1.05 to 1.08)	93.5	<0.0001	0.40
	No	47	1.03 (1.00 to 1.06)	98.9	<0.0001	
Cigarettes per day	Yes	30	1.16 (1.13 to 1.19)	91.9	<0.0001	<0.0001
	No	168	1.03 (1.02 to 1.05)	97.2	<0.0001	
Pack-years	Yes	17	1.07 (1.04 to 1.11)	95.4	<0.0001	0.78
	No	181	1.05 (1.04 to 1.07)	97.2	<0.0001	
Years since quitting	Yes	4	1.17 (1.15 to 1.18)	77.4	0.004	0.15

	No	194	1.05 (1.03 to 1.06)	96.9	<0.0001	
Physical activity	Yes	63	1.06 (1.04 to 1.08)	93.5	<0.0001	0.82
	No	135	1.05 (1.03 to 1.07)	97.6	<0.0001	
	Yes	5	1.10 (0.99 to 1.22)	97.8	<0.0001	
Height	No	193	1.05 (1.04 to 1.07)	96.6	<0.0001	0.48
	Yes	2	0.87 (0.83 to 0.91)	0	0.82	
Waist circumference or waist-to-hip ratio	No	196	1.05 (1.04 to 1.07)	97.1	<0.0001	0.10
	Yes	4	1.12 (1.07 to 1.16)	48.1	0.12	
Dietary pattern	No	194	1.05 (1.04 to 1.07)	97.2	<0.0001	0.38
	Yes	3	1.12 (1.06 to 1.18)	86.6	0.001	
Fat intake	No	195	1.05 (1.04 to 1.07)	97.0	<0.0001	0.69
	Yes	4	1.10 (0.95 to 1.28)	96.4	<0.0001	
Fruit, vegetables	No	194	1.05 (1.04 to 1.07)	97.0	<0.0001	0.49
	Yes	27	0.97 (0.93 to 1.02)	85.5	<0.0001	
Adjustment for potential intermediates						
Diabetes	Yes	171	1.06 (1.05 to 1.08)	97.4	<0.0001	0.006
	No	12	1.01 (0.95 to 1.07)	92.3	<0.0001	
Systolic blood pressure	No	186	1.06 (1.04 to 1.07)	97.2	<0.0001	0.28
	Yes	4	1.08 (0.99 to 1.17)	84.1	<0.0001	
Diastolic blood pressure	No	194	1.05 (1.04 to 1.07)	97.2	<0.0001	0.67
	Yes	20	1.01 (0.94 to 1.08)	95.6	<0.0001	
Hypertension	No	178	1.06 (1.05 to 1.07)	96.2	<0.0001	0.23
	Yes	3	1.12 (1.09 to 1.16)	0	0.87	
Triglycerides	No	195	1.05 (1.04 to 1.07)	97.2	<0.0001	0.49
	Yes	14	1.04 (0.99 to 1.09)	82.8	<0.0001	
Serum cholesterol	No	184	1.05 (1.04 to 1.07)	97.3	<0.0001	0.61
Adjustment for medical history						
Prevalent coronary heart disease	Yes	26	0.96 (0.90 to 1.02)	99.0	<0.0001	0.003
	No	172	1.07 (1.05 to 1.08)	96.0	<0.0001	
Prevalent stroke	Yes	22	0.99 (0.92 to 1.06)	98.6	<0.0001	0.07
	No	176	1.06 (1.05 to 1.08)	96.2	<0.0001	
Prevalent cancer	Yes	19	0.98 (0.91 to 1.04)	99.3	<0.0001	0.03
	No	179	1.06 (1.05 to 1.08)	95.9	<0.0001	
Family history of coronary heart disease	Yes	3	1.16 (1.04 to 1.30)	83.9	0.001	0.26
	No	195	1.05 (1.04 to 1.07)	97.1	<0.0001	
Studies with adjustment for age, smoking, alcohol, and physical activity and without adjustment for prevalent disease or intermediate factors						
Adjustment for main confounders, but not for intermediates	Yes	25	1.09 (1.04 to 1.14)	94.8	<0.0001	0.16
	No	173	1.05 (1.03 to 1.06)	97.1	<0.0001	
Studies with adjustment for main confounders, but not intermediates, stratified by duration of follow-up	<5 years	Yes	2	0.83 (0.70 to 0.98)	92.5	<0.0001
		No	13	0.92 (0.84 to 1.00)	87.2	<0.0001
	5-<10	Yes	5	1.16 (1.03 to 1.29)	81.7	<0.0001
		No	48	0.99 (0.95 to 1.02)	97.1	<0.0001
	10-<15	Yes	12	1.11 (1.06 to 1.16)	87.4	<0.0001
		No	54	1.06 (1.03 to 1.08)	92.3	<0.0001
	15-<20	Yes	3	1.03 (0.90 to 1.18)	88.0	<0.0001
		No	24	1.10 (1.06 to 1.14)	87.2	<0.0001
	≥20	Yes	3	1.22 (1.11 to 1.35)	74.4	0.02
		No	33	1.13 (1.10 to 1.16)	90.4	<0.0001

n=number of risk estimates, the number of risk estimates does not always add up to the total because of missing information in some studies

RR=relative risk, CI=confidence interval

$P_h^1$ =p for heterogeneity within each subgroup

$P_h^2$ =p for heterogeneity between subgroups using meta-regression analyses

Table G: Body mass index and all cause mortality in all participants, stratified by duration of follow-up, nonlinear dose-response

	All	<5 years	5-<10 years	10-<15 years	15-<20 years	20-<25 years	$\geq$ 25 years
<i>n</i>	198	12	41	66	28	15	23
BMI	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)
15	2.24 (2.15 to 2.34)		2.20 (2.10 to 2.30) <sup>2</sup>	2.37 (2.54 to 2.21) <sup>2</sup>		1.87 (1.84 to 1.91) <sup>2</sup>	
16	1.83 (1.77 to 1.91)	2.18 (2.03 to 2.34) <sup>1</sup>	1.99 (1.91 to 2.08)	2.10 (1.97 to 2.24)	1.60 (1.41 to 1.82) <sup>3</sup>	1.69 (1.67 to 1.73)	1.49 (1.35 to 1.63)
17.5	1.47 (1.43 to 1.51)	1.72 (1.64 to 1.80)	1.57 (1.52 to 1.62)	1.60 (1.52 to 1.68)	1.44 (1.29 to 1.60)	1.35 (1.34 to 1.37)	1.28 (1.18 to 1.38)
20	1.15 (1.13 to 1.17)	1.25 (1.22 to 1.27)	1.19 (1.17 to 1.21)	1.18 (1.15 to 1.22)	1.15 (1.09 to 1.22)	1.09 (1.08 to 1.09)	1.08 (1.03 to 1.12)
22	1.03 (1.02 to 1.04)	1.06 (1.05 to 1.06)	1.04 (1.03 to 1.05)	1.04 (1.03 to 1.05)	1.03 (1.01 to 1.05)	1.01 (1.01 to 1.01)	1.01 (1.00 to 1.03)
23	1.00	1.00	1.00	1.00	1.00	1.00	1.00
24	0.98 (0.97 to 0.99)	0.96 (0.95 to 0.96)	0.97 (0.96 to 0.97)	0.97 (0.96 to 0.98)	0.98 (0.96 to 1.00)	1.00 (0.99 to 1.00)	1.00 (0.98 to 1.01)
25	0.97 (0.96 to 0.98)	0.93 (0.92 to 0.93)	0.95 (0.93 to 0.96)	0.96 (0.95 to 0.98)	0.97 (0.93 to 1.01)	1.01 (1.00 to 1.01)	1.01 (0.98 to 1.04)
27.5	0.98 (0.96 to 1.01)	0.89 (0.88 to 0.90)	0.93 (0.91 to 0.95)	0.98 (0.94 to 1.02)	1.00 (0.92 to 1.08)	1.08 (1.07 to 1.08)	1.06 (1.00 to 1.13)
30	1.04 (1.00 to 1.08)	0.90 (0.89 to 0.92)	0.96 (0.92 to 1.00)	1.06 (0.99 to 1.13)	1.08 (0.95 to 1.23)	1.19 (1.18 to 1.20)	1.17 (1.06 to 1.29)
32.5	1.14 (1.09 to 1.20)	0.96 (0.94 to 0.98)	1.01 (0.96 to 1.07)	1.19 (1.09 to 1.30)	1.25 (1.05 to 1.49)	1.35 (1.34 to 1.36)	1.32 (1.16 to 1.50)
35	1.29 (1.21 to 1.37)	1.06 (1.02 to 1.10)	1.11 (1.03 to 1.19)	1.39 (1.24 to 1.55)	1.50 (1.20 to 1.88)	1.55 (1.53 to 1.57)	1.53 (1.30 to 1.80)
37.5	1.49 (1.37 to 1.61)	1.21 (1.13 to 1.29)	1.24 (1.14 to 1.35)	1.65 (1.45 to 1.89)	1.89 (1.44 to 2.49)	1.81 (1.79 to 1.83)	1.81 (1.48 to 2.20)
40	1.74 (1.59 to 1.91)	1.44 (1.30 to 1.59)	1.40 (1.27 to 1.55)	2.02 (1.73 to 2.36)	2.47 (1.79 to 3.40)	2.13 (2.10 to 2.16)	2.16 (1.71 to 2.72)
42.5	2.07 (1.86 to 2.30)	1.76 (1.52 to 2.05)	1.62 (1.44 to 1.81)	2.52 (2.11 to 3.01)	3.35 (2.31 to 4.85)	2.51 (2.47 to 2.55)	2.62 (2.01 to 3.42)
45	2.49 (2.22 to 2.81)	2.25 (1.83 to 2.76)	1.88 (1.65 to 2.14)	3.18 (2.60 to 3.90)	4.67 (3.06 to 7.11)	2.96 (2.90 to 3.01)	3.21 (2.38 to 4.34)

<sup>1</sup> Lowest value was a BMI of 16.2

<sup>2</sup> Lowest value was a BMI of 15.5

<sup>3</sup> Lowest value was a BMI of 16.6

*n*=number of risk estimates, the number of risk estimates does not add up to the total because some studies had to be excluded for the model to converge.

Table H: Body mass index and all cause mortality in never smokers, stratified by geographic location

	All	Europe	North America	Australia	Asia
n	44	6	20	2	11
BMI	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)
15	2.01 (1.80 to 2.24)	-	-	-	2.26 (1.86 to 2.74)
16	1.66 (1.51 to 1.83)	1.66 (1.39 to 1.98)	1.23 (1.13 to 1.34) <sup>†</sup>	-	1.88 (1.59 to 2.23)
17.5	1.35 (1.25 to 1.45)	1.35 (1.18 to 1.53)	1.16 (1.08 to 1.26)	-	1.51 (1.32 to 1.72)
20	1.10 (1.05 to 1.14)	1.09 (1.03 to 1.17)	1.03 (0.99 to 1.07)	-	1.16 (1.08 to 1.25)
22	1.01 (1.00 to 1.03)	1.01 (0.99 to 1.03)	1.00 (0.99 to 1.01)	1.05 (0.97 to 1.12)	1.03 (1.01 to 1.06)
23	1.00	1.00	1.00	1.00	1.00
24	1.00 (0.98 to 1.01)	1.00 (0.98 to 1.02)	1.01 (1.00 to 1.02)	0.96 (0.90 to 1.03)	0.98 (0.96 to 1.01)
25	1.01 (0.98 to 1.03)	1.01 (0.97 to 1.05)	1.03 (1.00 to 1.05)	0.94 (0.85 to 1.06)	0.99 (0.94 to 1.03)
27.5	1.07 (1.01 to 1.14)	1.08 (1.00 to 1.18)	1.10 (1.04 to 1.17)	0.95 (0.80 to 1.13)	1.06 (0.95 to 1.18)
30	1.20 (1.09 to 1.32)	1.22 (1.07 to 1.38)	1.22 (1.11 to 1.34)	1.07 (0.91 to 1.27)	1.24 (1.04 to 1.46)
32.5	1.39 (1.22 to 1.58)	1.42 (1.20 to 1.68)	1.39 (1.22 to 1.57)	1.36 (1.07 to 1.73)	1.57 (1.25 to 1.98)
35	1.65 (1.40 to 1.94)	1.71 (1.38 to 2.12)	1.61 (1.37 to 1.89)	1.99 (1.13 to 3.49)	2.16 (1.62 to 2.88)
37.5	2.02 (1.66 to 2.46)	2.11 (1.62 to 2.74)	1.90 (1.56 to 2.30)	3.41 (1.12 to 10.40)	3.18 (2.24 to 4.50)
40	2.50 (1.98 to 3.15)	2.63 (1.93 to 3.59)	2.27 (1.81 to 2.85)	-	4.99 (3.31 to 7.53)
42.5	3.16 (2.42 to 4.12)	3.36 (2.34 to 4.82)	2.73 (2.10 to 3.55)	-	-
45	4.02 (2.98 to 5.43)	4.34 (2.87 to 6.57)	3.33 (2.48 to 4.48)	-	-

<sup>†</sup> Lowest value was a BMI of 16.75

n=number of risk estimates, the number of risk estimates does not add up to the total because some studies had to be excluded for the model to converge.

Table I: Body mass index and all cause mortality, all participants and never smokers, stratified by study quality, nonlinear dose-response

	All participants, all studies	All participants, study quality=4-6	All participants, study quality=7-9	Never smokers, all studies	Never smokers, study quality=4-6	Never smokers, study quality=7-9
<i>n</i>	198	63	128	44	13	31
BMI	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)
15	2.24 (2.15-2.34)	2.10 (2.00-2.20) <sup>1</sup>	2.17 (2.05-2.29)	2.01 (1.80-2.24)		2.03 (1.77-2.33)
16	1.83 (1.77-1.91)	1.91 (1.82-1.99)	1.78 (1.70-1.87)	1.66 (1.51-1.83)	1.50 (1.30-1.73) <sup>2</sup>	1.68 (1.49-1.89)
17.5	1.47 (1.43-1.51)	1.53 (1.48-1.59)	1.44 (1.38-1.49)	1.35 (1.25-1.45)	1.36 (1.20-1.54)	1.36 (1.24-1.49)
20	1.15 (1.13-1.17)	1.19 (1.17-1.21)	1.14 (1.11-1.16)	1.10 (1.05-1.14)	1.09 (1.03-1.17)	1.10 (1.05-1.16)
22	1.03 (1.02-1.04)	1.04 (1.03-1.05)	1.03 (1.02-1.04)	1.01 (1.00-1.03)	1.01 (0.99-1.03)	1.02 (1.00-1.03)
23	1.00	1.00	1.00	1.00	1.00	1.00
24	0.98 (0.97-0.99)	0.96 (0.95-0.97)	0.98 (0.97-0.99)	1.00 (0.98-1.01)	1.00 (0.98-1.02)	1.00 (0.98-1.01)
25	0.97 (0.96-0.98)	0.94 (0.93-0.96)	0.98 (0.96-0.99)	1.01 (0.98-1.03)	1.01 (0.97-1.06)	1.00 (0.97-1.04)
27.5	0.98 (0.96-1.01)	0.93 (0.90-0.96)	1.00 (0.97-1.03)	1.07 (1.01-1.14)	1.09 (0.99-1.20)	1.06 (0.99-1.15)
30	1.04 (1.00-1.08)	0.96 (0.92-1.01)	1.07 (1.02-1.12)	1.20 (1.09-1.32)	1.24 (1.07-1.44)	1.18 (1.05-1.33)
32.5	1.14 (1.09-1.20)	1.03 (0.97-1.09)	1.19 (1.11-1.27)	1.39 (1.22-1.58)	1.46 (1.19-1.79)	1.36 (1.16-1.60)
35	1.29 (1.21-1.37)	1.14 (1.06-1.23)	1.35 (1.24-1.47)	1.65 (1.40-1.94)	1.78 (1.37-2.30)	1.61 (1.32-1.97)
37.5	1.49 (1.37-1.61)	1.29 (1.18-1.42)	1.57 (1.42-1.74)	2.02 (1.66-2.46)	2.21 (1.62-3.02)	1.95 (1.53-2.48)
40	1.74 (1.59-1.91)	1.50 (1.34-1.67)	1.86 (1.65-2.09)	2.50 (1.98-3.15)	2.82 (1.96-4.05)	2.41 (1.81-3.20)
42.5	2.07 (1.86-2.30)	1.77 (1.56-2.00)	2.23 (1.95-2.55)	3.16 (2.42-4.12)	3.63 (2.38-5.52)	3.02 (2.18-4.20)
45	2.49 (2.22-2.81)	2.13 (1.85-2.45)	2.71 (2.33-3.16)	4.02 (2.98-5.43)	4.78 (2.96-7.69)	3.83 (2.64-5.54)

<sup>1</sup> Lowest value was a BMI of 15.5

<sup>2</sup> Lowest value was a BMI of 16.75

*n*=number of risk estimates, the number of studies included does not always add up to the total because some studies had to be excluded for the nonlinear model to converge.

Table J: Body mass index and all cause mortality, never smokers, stratified by age, nonlinear dose-response

	Never smokers, all studies	Never smokers, age <65 years	Never smokers, age ≥65 years
<i>n</i>	44	13	6
BMI	RR (95% CI)	RR (95% CI)	RR (95% CI)
15	2.01 (1.80-2.24)		
16	1.66 (1.51-1.83)	2.00 (1.92-2.09) <sup>1</sup>	1.73 (1.44-2.08) <sup>1</sup>
17.5	1.35 (1.25-1.45)	1.54 (1.49-1.59)	1.46 (1.26-1.69)
20	1.10 (1.05-1.14)	1.13 (1.11-1.15)	1.16 (1.07-1.25)
22	1.01 (1.00-1.03)	1.02 (1.01-1.03)	1.04 (1.01-1.07)
23	1.00	1.00	1.00
24	1.00 (0.98-1.01)	1.00 (0.99-1.01)	0.97 (0.95-1.00)
25	1.01 (0.98-1.03)	1.02 (1.01-1.03)	0.96 (0.91-1.01)
27.5	1.07 (1.01-1.14)	1.12 (1.11-1.14)	0.95 (0.85-1.08)
30	1.20 (1.09-1.32)	1.32 (1.29-1.36)	0.99 (0.82-1.19)
32.5	1.39 (1.22-1.58)	1.63 (1.57-1.69)	1.05 (0.82-1.36)
35	1.65 (1.40-1.94)	2.08 (1.99-2.17)	1.15 (0.83-1.59)
37.5	2.02 (1.66-2.46)	2.71 (2.57-2.86)	1.28 (0.87-1.90)
40	2.50 (1.98-3.15)	3.60 (3.38-3.83)	1.45 (0.92-2.29)
42.5	3.16 (2.42-4.12)	4.83 (4.50-5.19)	1.66 (0.98-2.81)
45	4.02 (2.98-5.43)	6.56 (6.05-7.11)	1.92 (1.06-3.48)

<sup>1</sup> Lowest value was a BMI of 16.25

*n*=number of risk estimates, the number of risk estimates does not add up to the total because not all studies reported results stratified by age

Table K. Influence analysis of BMI and all cause mortality among never smokers

Study omitted		Estimate	[95% Conf. Interval]
Rissanen, 1989		1.1801792	1.1488022 1.2124132
Rissanen, 1991		1.1760972	1.1449667 1.2080739
Lee, 1993		1.1756554	1.1446522 1.2074983
Lindsted, 1997		1.1783594	1.1468321 1.2107533
Lindsted, 1998		1.1773396	1.1461253 1.2094041
Yuan, 1998		1.1771479	1.1461149 1.2090211
Singh, 1999		1.1728579	1.1418855 1.2046703
Allison, 1999, CPS1		1.1775452	1.1427189 1.2134328
Visscher, 2000		1.1786907	1.1473466 1.2108909
Visscher, 2001		1.1821303	1.1510041 1.2140983
Tsugane, 2002		1.177052	1.1459383 1.2090106
Miyazaki, 2002		1.1774776	1.1465021 1.2092899
Engeland, 2003		1.1765411	1.1448325 1.2091278
Hu, 2004		1.1730058	1.1421667 1.2046776
Adams, 2006		1.1753507	1.1438026 1.2077689
Freedman, 2006		1.1772259	1.1458265 1.2094859
Lawlor, 2006, Renfrew-Paisley		1.1764736	1.1449702 1.2088438
Lawlor, 2006, Collaborative		1.1766042	1.1454438 1.2086122
Jee, 2006		1.1802418	1.1485417 1.2128168
Gelber, 2007		1.1781315	1.1468171 1.2103009
Mazza, 2007		1.1840056	1.1528548 1.2159982
Flegal, 2007		1.1821638	1.1507456 1.2144399
Simpson, 2007		1.179721	1.1483896 1.2119073
Dolan, 2007		1.1807076	1.1493915 1.2128769
Pischon, 2008		1.1751304	1.1437678 1.2073529
Hozawa, 2008		1.176594	1.1456565 1.208367
Kivimaki, 2008		1.1744596	1.1432441 1.2065275
Pednekar, 2008		1.1941104	1.1681112 1.2206882
Zhang, 2008		1.1755044	1.1444472 1.2074046
Tsai, 2008		1.1749504	1.1437142 1.2070396
Moore, 2008		1.1766896	1.1451812 1.2090648
Sauvaget, 2008		1.1859139	1.1548196 1.2178454
Orpana, 2010		1.1822603	1.1509815 1.214389
Odegaard, 2010		1.1791822	1.1476296 1.2116023
Bessonova, 2011		1.1804385	1.1488141 1.2129333
Boggs, 2011		1.1784773	1.1469526 1.2108684
Hotchkiss, 2011		1.1826183	1.1513882 1.2146953
Park, 2012		1.174419	1.143186 1.2065055
Ma, 2013		1.180945	1.1492094 1.213557
Singh, 2013		1.1784825	1.1471149 1.210708
Joshy, 2014		1.1776602	1.146153 1.2100335
Patel, 2014		1.1790823	1.1415523 1.217846
Yi, 2015		1.180904	1.1490226 1.2136701
Cao, 2015		1.1800684	1.1484958 1.2125089
Combined		1.1785422	1.1475681 1.2103523

Table L. Influence analysis of BMI and all cause mortality among all participants

Study omitted		Estimate	[95% Conf. Interval]
Multiple Risk Factor Intervention Trial, 1986		1.0518801	1.0373954 1.0665672
Johansen, 1987		1.0523934	1.0378823 1.0671073
Rissanen, 1989		1.0522426	1.0377041 1.0669849
Rissanen, 1991		1.0513349	1.0368488 1.0660235
Ho, 1991		1.0527363	1.0382656 1.0674088
Lee, 1993		1.051461	1.0369658 1.0661589
Kornitzer, 1993		1.052516	1.0380242 1.06721
Sorkin, 1994		1.0515583	1.0370653 1.0662539
Norrish, 1995		1.0518863	1.0374252 1.0665489
Hanson, 1995		1.0513637	1.0368962 1.066033
Seidell, 1996		1.0520784	1.0375745 1.0667849
Hodge, 1996		1.05308	1.0385827 1.0677797
Chyou, 1997		1.0507386	1.0362805 1.0653985
Maskarinec, 1998		1.0513431	1.0368328 1.0660565
Yuan, 1998		1.0522366	1.0377532 1.0669221
Seccareccia, 1998		1.0529143	1.0384259 1.0676048
Rosengren, 1999		1.0511266	1.0366404 1.0658152
Allison, 1999, CPSI		1.0510976	1.0366157 1.0657817
Allison, 1999, FHSI		1.0506448	1.0361809 1.0653105
Allison, 1999, TCHS		1.0513002	1.0368181 1.0659845
Ostbye, 1999		1.0536469	1.0391736 1.0683218
Andersen, 2000		1.0517125	1.0371847 1.0664438
Baik, 2000		1.0511166	1.0366368 1.0657986
Folsom, 2000		1.0532054	1.0387195 1.0678933
Fortes, 2000		1.0527692	1.038288 1.0674524
Haapanen-Niemi, 2000		1.0522742	1.037787 1.0669638
Hara, 2000		1.0523965	1.0379308 1.0670638
Strawbridge, 2000		1.0529985	1.0384966 1.067703
Grabowski, 2001		1.0540669	1.039625 1.0687094
Katzmarzyk, 2001		1.0517206	1.037227 1.0664167
Niverthi, 2001		1.0516554	1.0371573 1.0663561
Dey, 2001		1.0516729	1.0371978 1.06635
Wannamethee, 2001		1.0522776	1.0377772 1.0669805
Osler, 2001		1.0519544	1.0374618 1.0666496
Barbagallo, 2001		1.0519493	1.0374916 1.0666084
Farrell, 2002		1.0523038	1.0378219 1.0669878
Stevens, 2002		1.0521407	1.0376415 1.0668424
Tsugane, 2002		1.0510149	1.0365474 1.0656843
Miyazaki, 2002		1.0518377	1.0373714 1.0665057
Miller, 2002		1.0522125	1.0377189 1.0669085
Wang, 2002		1.0526546	1.0381947 1.0673159
Somes, 2002		1.052128	1.0376563 1.0668015
Engeland, 2003		1.0508018	1.0356785 1.0661458
Lubin, 2003		1.0524812	1.0379992 1.0671651
Thorogood, 2003		1.0516467	1.0371612 1.0663345
Hosegood, 2003		1.0523453	1.0378808 1.0670114
Kuriyama, 2004		1.0520171	1.0375296 1.0667069
Stevens, 2004		1.0524694	1.03799 1.0671507
Sundquist, 2004		1.0526925	1.0381866 1.0674012

Maru, 2004		1.0511444	1.0366583	1.0658327
Hu, 2004		1.0509914	1.0365392	1.0656451
Hu, 2005		1.0522054	1.0376759	1.0669385
Nyholm, 2005		1.0529865	1.0385003	1.0676746
Pajak, 2005		1.051806	1.0373032	1.0665116
Iribarren, 2005		1.0529237	1.0384411	1.0676082
Jain, 2005		1.0516325	1.036911	1.0665629
Hayashi, 2005		1.0514543	1.0369974	1.0661128
Hjartåker, 2005		1.0513479	1.0368574	1.0660408
Chang-Claude, 2005		1.0524288	1.0379436	1.0671163
Gu, 2006		1.0512131	1.0367218	1.0659071
Adams, 2006		1.0512717	1.0366213	1.0661292
Tsai, 2006		1.0514542	1.03695	1.0661613
van Dam, 2006		1.0511907	1.0367008	1.065883
Jee, 2006		1.0518556	1.0373155	1.0665995
Lawlor, 2006, Renfrew/Paisley Study		1.0522847	1.0377535	1.0670195
Lawlor, 2006, Collaborative Study		1.0521495	1.0376351	1.0668671
Price, 2006		1.053936	1.0394962	1.0685763
Schooling, 2006		1.0543426	1.0398877	1.0689986
Baldinger, 2006		1.0514857	1.0369979	1.0661758
Ray, 2006		1.0523673	1.0378921	1.0670444
Freedman, 2006		1.0513655	1.0368627	1.066071
Tice, 2006		1.0536325	1.0391743	1.0682918
Corrada, 2006		1.0523286	1.03781	1.0670502
Gale, 2007		1.0522069	1.0377221	1.0668938
Smith, 2007		1.0527197	1.0382226	1.0674193
Janssen, 2007		1.0528154	1.0383105	1.0675229
Sai, 2007		1.0520865	1.0375975	1.0667776
Greenberg, 2007		1.0513816	1.03692	1.0660449
Al Snihi, 2007		1.0530558	1.0385739	1.0677395
Flegal, 2007		1.0522	1.0376786	1.0669246
Mazza, 2007		1.0531702	1.0386821	1.0678605
Simpson, 2007		1.0520489	1.0375435	1.0667571
Locher, 2007		1.0525461	1.0380589	1.0672357
Fujino, 2007		1.0523944	1.0378755	1.0671164
Gelber, 2007		1.0514642	1.0369645	1.0661666
Dolan, 2007		1.0528574	1.0383554	1.0675619
Pischon, 2008		1.0511395	1.0366436	1.065838
Hozawa, 2008		1.0517567	1.0372831	1.0664325
Luchsinger, 2008		1.051949	1.037469	1.066631
Orsini, 2008		1.0521444	1.037631	1.0668608
Kivimaki, 2008		1.0508729	1.036399	1.0655489
Pednekar, 2008		1.0530503	1.0385755	1.0677267
Matsuo, 2008		1.051748	1.0372375	1.0664614
Zhang, 2008		1.0511624	1.0366986	1.0658278
Tsai, 2008		1.0511882	1.0366976	1.0658815
Sauvaget, 2008		1.0531188	1.0386195	1.0678204
Ringback Weitoft, 2008		1.0518637	1.0373542	1.066576
Moore, 2008		1.0510457	1.036559	1.0657346
Kulminski, 2008		1.0528523	1.0383489	1.0675582
Korkeila, 2009		1.0518354	1.037338	1.0665354
Reuser, 2009		1.0516306	1.0371268	1.0663372
Ferrie, 2009		1.0521325	1.0376291	1.0668387
Guallar-Castillon, 2009		1.0529807	1.0384806	1.0676832
Walter, 2009		1.0526942	1.0381871	1.0674042

Klenk, 2009		1.0512966	1.0367786	1.0660179
Wandell, 2009		1.0517135	1.0372396	1.0663893
Gulsvik, 2009		1.0514731	1.0369886	1.0661601
Stessman, 2009		1.0529715	1.038484	1.0676612
Cesari, 2009		1.0524118	1.0379318	1.0670936
Neovius, 2009		1.050784	1.0363144	1.0654558
Orpana, 2010		1.0524367	1.0379335	1.0671427
Iversen, 2010		1.0524901	1.0379832	1.0671998
Pierce, 2010		1.0532118	1.038727	1.0678985
Arnlov, 2010		1.0513183	1.0368338	1.0660051
Odegaard, 2010		1.0517272	1.0372045	1.0664532
Vapattanawong, 2010		1.0536864	1.0391973	1.0683776
Bellocco, 2010		1.0517203	1.0372185	1.0664248
Lantz, 2010		1.05321	1.0387115	1.067911
Vessey, 2010		1.0513855	1.0368958	1.0660778
Berraho, 2010		1.0523967	1.0378928	1.0671031
Atlantis, 2010		1.0524132	1.0379188	1.0671101
Nagai, 2010		1.0516137	1.03712	1.0663098
Byun, 2010		1.0519924	1.0374781	1.0667099
Carlsson, 2011		1.0509841	1.0365107	1.0656598
Klijs, 2011		1.0523336	1.0378239	1.0670462
Hwang, 2011		1.0508487	1.0363756	1.0655239
Lin, 2011		1.0513705	1.0368841	1.0660595
Boggs, 2011		1.0515722	1.0370574	1.06629
Lisko, 2011		1.0528039	1.0383275	1.067482
Wee, 2011		1.0524356	1.0379182	1.0671562
Puddu, 2011		1.0516734	1.0371568	1.0663933
Cohen-Mansfield, 2011		1.053184	1.0386854	1.0678849
Niedhammer, 2011		1.0525157	1.0380312	1.0672026
Mehta, 2011		1.0519315	1.0374333	1.0666324
Heir, 2011		1.0513906	1.0369091	1.0660744
Tsai, 2011		1.0540464	1.0395635	1.068731
Tognon, 2011		1.0529022	1.0384099	1.0675968
Bessonova, 2011		1.0518588	1.0373245	1.0665966
Strand, 2012		1.0522442	1.0377792	1.0669107
Pan, 2012		1.0523888	1.0378727	1.0671079
Beleigoli, 2012		1.0530716	1.0385746	1.0677711
Zunzunegui, 2012		1.0531421	1.0386432	1.0678433
Park, 2012		1.0512594	1.036711	1.0660118
Katzmarzyk, 2012		1.0516605	1.0371535	1.0663706
Fontaine, 2012, PRHHP		1.0521072	1.0375923	1.066825
Fontaine, 2012, SAHS		1.052521	1.0380124	1.0672324
Fontaine, 2012, SALSA		1.0526606	1.0381552	1.0673686
Jerant, 2012		1.0522196	1.0377095	1.0669326
De Hollander, 2012		1.052386	1.0378824	1.0670923
Chen, 2012		1.0512112	1.0367213	1.0659035
Claessen, 2012		1.052822	1.0383183	1.0675282
Rhee, 2012		1.0522615	1.0377846	1.0669403
Cohen, 2012		1.0526212	1.0381225	1.0673225
Dobson, 2012, ALSWH		1.0527722	1.0382665	1.0674806
Dobson, 2012, HMS		1.0527351	1.0382292	1.0674436
Hotchkiss, 2013		1.0531362	1.0386384	1.0678364
Choi, 2013		1.0526309	1.0381604	1.0673032
Schmidt, 2013		1.0519481	1.0374644	1.0666339
Yano, 2013		1.0529414	1.0384561	1.0676289

Masters, 2013		1.0511931	1.0361809	1.0664229
Hinnouho, 2013		1.051528	1.0370429	1.0662155
Takata, 2013		1.0535129	1.0390297	1.0681981
Dahl, 2013		1.0529823	1.0384828	1.0676843
Stenholm, 2014		1.0523572	1.0378419	1.0670755
Singh, 2014		1.0513859	1.0369115	1.0660623
Ghaem Maralani, 2014		1.0521251	1.0376254	1.0668273
Xiao, 2014		1.0512894	1.0367284	1.0660552
McTigue, 2014		1.0515224	1.0369372	1.0663127
Buys, 2014		1.0530193	1.0385201	1.067721
Ford, 2014		1.0528319	1.0383325	1.0675337
Patel, 2014		1.0507965	1.0355952	1.0662209
Gao, 2014		1.0524373	1.0379556	1.0671209
Liu, 2014		1.0525409	1.0380348	1.0672497
Roh, 2014		1.0518497	1.0373198	1.0665832
Clark, 2014		1.0524575	1.0379524	1.0671651
Wu, 2014		1.0533456	1.0388665	1.0680263
Mehta, 2014		1.0520042	1.037514	1.0666969
Lee, 2014		1.052899	1.0384107	1.0675895
He, 2014		1.052668	1.0381722	1.0673661
Kokkinos, 2014		1.0527353	1.0382292	1.0674442
Hirani, 2014		1.0534985	1.039009	1.0681901
Yiengprugsawan, 2014		1.0521649	1.0376794	1.0668526
Suemoto, 2015		1.0530163	1.038519	1.067716
Hong, 2015, KLSHA		1.0529842	1.0385126	1.0676575
Long, 2015		1.0517771	1.0372812	1.0664757
Burman, 2015		1.0534093	1.0389166	1.0681041
Kumar, 2015		1.0529354	1.0384326	1.0676405
Qizilbash, 2015		1.0519896	1.037181	1.0670096
Yi, 2015		1.0514157	1.0366949	1.0663455
Lu, 2015		1.0557687	1.0428841	1.0688126
Chung, 2015		1.0530188	1.0385212	1.0677187
Hong, 2015, KCS		1.0516946	1.0372108	1.0663807
Ponce-Garcia, 2015		1.0519092	1.0374281	1.0665925
Nakade, 2015		1.0537977	1.0393097	1.0684876
Dankner, 2015		1.0519152	1.0374063	1.0666269
Ganna, 2015		1.0521767	1.0376562	1.0669004
Graf, 2015		1.0533891	1.0389072	1.0680728
Mirbolouk, 2015		1.0526621	1.0381796	1.0673466
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Combined		1.0522014	1.0377411	1.0668632
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